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SEPTEMBER, 1883.

THE RESULTS of garden operations the present season can now be estimated with some accuracy. The plentiful rains that have visited most parts of the country have been favorable to newly planted trees, and these have made a fine growth. The possessors of lawns have been able to rejoice in them. We want more lawns spread out around our country homes, and planted with handsome trees, beautiful flowering shrubs, and brightened with flowers. Pull down the fence that, too often in front of the farm house, encloses a little space where the grass grows rank till midsummer, and is only cut when it has become so tall and heavy that it has lodged. Yield a generous space, and instead of the lonesome Lilac or Snowball, make the spot glad with many of the beauties of vegetation. The time to accomplish this work is at hand. Plow or spade, and enrich the soil and mellow it, and sow the seed; a green carpet will spread itself over it before the winter frosts set in. Vegetable gardens on low and undrained grounds in many parts of the country have had a sorry time; even on drained lands it has required a great amount of patience and resolution, as well as hard work to keep ahead of the weeds; but the crops are abundant. The necessity of underdraining on many places was an important lesson taught last year; it is repeated

this season even more explicitly. We cannot afford to raise garden crops on wet land. The market gardener should, first of all, secure dry soil for his operations, even if he is obliged to borrow money to underdrain with. Nor is it less necessary that all fruit crops should be raised on well drained land. Let it be kept in mind that underdrained land is dry in wet times, but is moister in a drought than undrained lands.

The late spring and cool summer kept back the bedding plants, but they are making a good show now. Many kinds of annuals have done exceedingly well, and the hardy perennial flowering plants have shown themselves to good advantage. Of course, we must soon be making preparations for housing winter plants. Have a care for the soil used in potting. Do not take what you find at hand. Some leaf-mold, some sand, and some loam taken just under the sod of an old pasture, and all mixed together, make a soil that suits a great variety of plants; some old manure, more or less, as may be necessary, a little more sand for the finer rooted plants, and a little more loam for the stronger rooted ones, are some of the lines of discrimination.

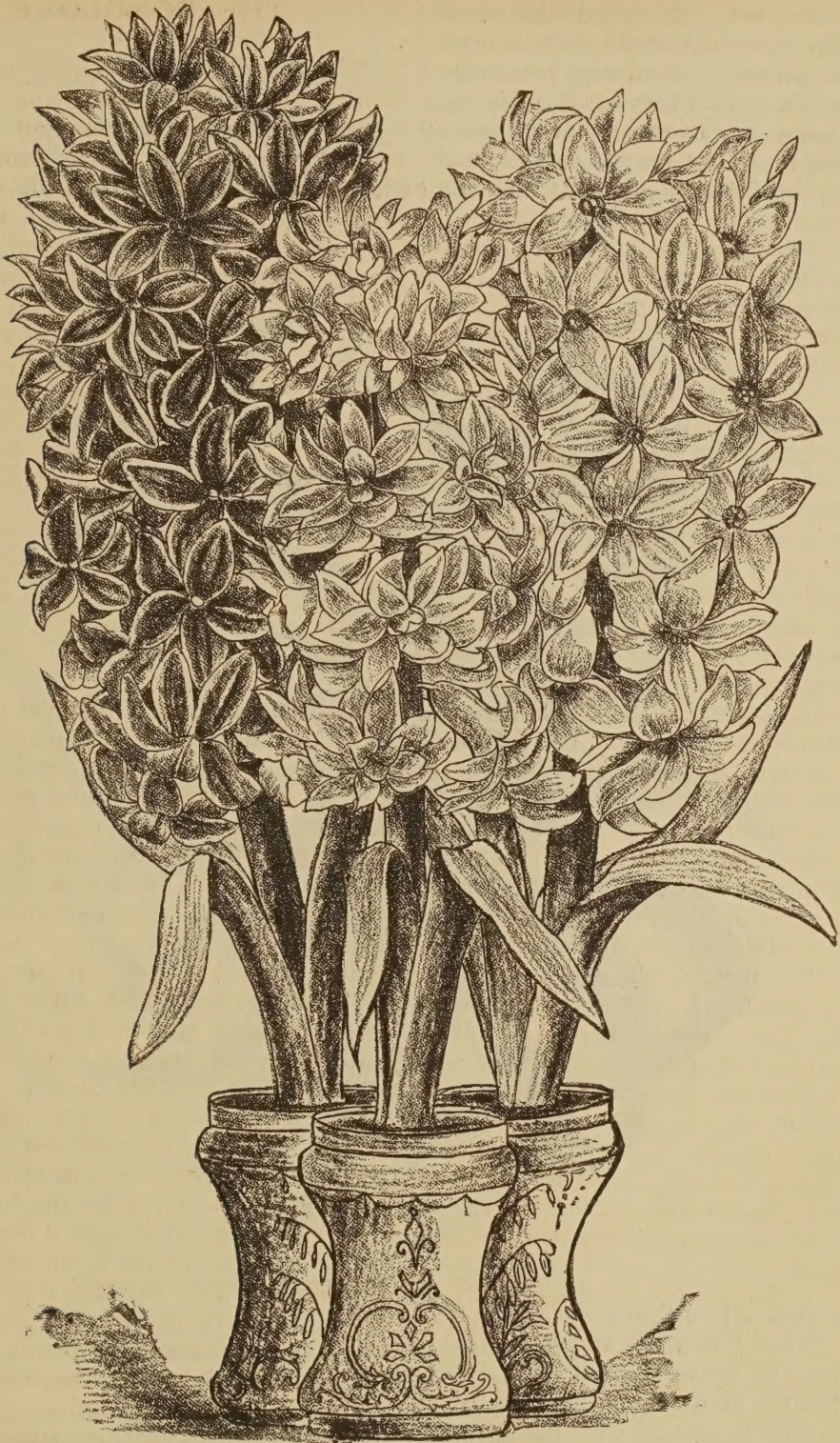
A most unusual rumor has been heard among some farmers who have Apple orchards; they have proposed to cut

down the trees. Who could have made this suggestion five years since and been considered sane? And what reason for it now? We have a very light Apple crop this season, and in many places none; it was the same last year, it was the same the year before. The land is too valuable for other purposes to remain in barren trees. We do not think there is cause for discouragement, but the successful Apple-grower must understand the difficulties he encounters and contend against them intelligently and efficiently. The abundance of the Apple crop the year before (1880) was a sufficient reason for its lack three years ago. Last year, there were cold storms at the time of blooming, and the presence of an aphid on the leaves shortly after was reported from many parts of the country; and the loss of the crop of 1882 has been very generally attributed to these causes. Again, the question is asked, why has the crop failed this year? Some attribute it to cold rains in spring at blooming time, others think it was this cause in connection with the drought of last year. That the drought has been an important factor in this result no one who fully understands its severity can doubt; it was in continuance about two years, or from the spring of 1881 to last May. The trees had been enfeebled by it, and therefore were less able to resist the attack of the leaf aphid last year, which still more enfeebled them, and yet the drought continued. This spring there was abundance of bloom almost everywhere, and in most localities there was a fair or light set of fruit; it was taken possession of by the codling moth soon after it was formed, and in a short time fell. On orchards where the fruit set, and the codling moth was destroyed, fair crops are now reported.

With the increased attention now evidently necessary to give to the orchard to defend it from insects, more methodical labor must be bestowed upon it. The welfare of the trees and the crop must be secured against all its winged depredators, and the most efficient operations to secure this end must be practiced. This attention may be too great for some farmers, and by others it will probably be avoided as uncongenial. Thus, the raising of Apples, as other fruit-growing, is constantly tending to become a special business.

THE FOXGLOVE.

The Foxglove, *Digitalis purpurea*, is a native of Great Britain and Europe, growing in waste places and on dry, gravelly banks; but because common it has not been neglected, on the contrary, this flower, delighting children, has none the less commanded the admiration of those of larger growth. In this respect, like the Primrose, it appears to have inspired an affection in the young that has increased with ripening years. It has been cultivated, its finest forms, colors and markings selected, until strains of seed now exist that produce blooms of great beauty. The colors, even in the wild state of the plant, range from a purplish red to white, and the throat of the flower is prettily mottled. The plants of a variety called *gloxinoides*, or *gloxinæflora*, are stronger, more branching, bear more profusely, and the flowers are higher colored than those of the other improved strains. The plant is biennial, but may be propagated by division of the roots in autumn after the season of blooming; and it is easily raised from seed, sown in early spring in the open ground, or in the house or frame; if in the former, care will be necessary to shade the plants until they have attained some strength, as when quite young they may be quickly injured by a hot sun. As soon as the plants have made a few leaves they can be transplanted in a place a little shaded, and be placed about six inches apart, or far enough to allow them to develop. In the fall they can be removed to permanent places. On account of their height, two or three feet, and their showiness they are suitable for the back of a border of perennial or annual plants; but one of the best places is the shrubbery, as being especially suited to their requirements, and they, in turn, lighting up the otherwise sombreness beneath the foliage. During July and August, in this climate, they are in continuous bloom, commencing to open their flowers at the base of the spike before the upper buds are fairly formed. This is a plant every one can have and derive pleasure from; at the same time, those who are skillful can employ it to the best advantage. Many of the choicest blessings of nature are freely afforded to all, but only the most intelligent make the best use of them.



HYACINTHS.

SPRING BULBS.

Heathen mythology has given us no prettier story than that concerning Hyacinthus, illustrating the admiration and love that may be incited by a beautiful boy, or, as some might say, it was a

recognition of divinity in our humanity. Hyacinthus, a youth, beautiful in person and admirable in character, was loved both by Apollo and Zephyrus; but Zephyrus became jealous of the favor bestowed by Apollo, who was preferred by the youth, and he vented his passion

upon Apollo by breathing with his strongest breath upon a quoit, which the latter had just pitched, and caused it to turn aside from its course through the air; but, alas! it smote Hyacinthus in the forehead and killed him. Apollo greatly mourned his loss, and in memory of him he

Thy beauties all unseen by vulgar eyes,
Sol, in his brightness, still delights to view;
He clothes thy petals in his glorious hue,
To show how much of old he did thee prize.

And what the sighing Zephyr hither brings,
To wander in these muse-beloved dells,
It is to linger 'midst thy drooping bells,
While vain repentance in thine ear he sings.



GOLD STRIPED LEAVED CROWN IMPERIAL.

brought forth a beautiful flower from his blood. What flower the ancients understood this to be we cannot be certain about, but the name of the immortalized youth is now associated with the spring-blooming bulb of which a three-fold illustration is here shown.

An unknown singer has given us the following lines addressed to the Hyacinth:

In pensive groves, meet temple for thy form,
Where, with her silvery music, doth intrude
The lucid stream, where nought unkind or rude
Durst break of harmony the hallowed chain,

And, sweetest flower, methinks thou hast forgiven
Him, who, unconsciously, did cause thy death
For, soon as thou hadst yielded up thy breath,
With grief for thee his frantic soul was riven.

And thou wert placed where mingle wave and breeze
Their dreamy music with the vocal choir,
Whose varied harmonies might seem a lyre,
Striving with dying notes thy soul to please.

Where winter ne'er ungraciously presumes
To touch thee with his sacrilegious hand,
Where thy meek handmaids are the dews so bland,
When spring around thee spreads her choicest blooms.

The Hyacinth is a native of the country about the eastern Mediterranean, and this

is probably what is referred to in the last two stanzas.

From the last of September to the first December is the time for planting Hyacinth bulbs. We prefer to plant as early as possible, though we have good results usually even from late planted ones. The extremely dry weather of last fall and winter, in this part of the country, was particularly unfavorable to late

tinues all through the winter; it is evident then that the soil should not be allowed to freeze, thus imitating the conditions of its natal home, as well described in the first two lines of the last stanza above quoted. A covering of long litter, dry leaves, or evergreen boughs, will secure this end.

The flowers produce the most striking effect in masses of single colors, but unless a considerable planting is made, this method can not be followed. In ordinary practice it is best to plant with reference to contrasting the colors, red, blue and white. This can be done in no better way than by first lining out the bed in rows eight inches apart and then lining it diagonally, setting a stick at each intersection of lines, and planting the bulbs so that the colors shall regularly repeat in the manner here indicated by the letters R, B, and W, denoting the colors red, blue and white, as follows:

R B W R B W R B W
W R B W R B W R B
R B W R B W R B W
W R B W R B W R B

To avoid mistakes the requisite number of sticks should be made ready, and divided into three parts, each stick marked with its appropriate letter. After the sticks have been properly set it will be plain enough to set the bulbs in the right place, but it will require some care to get them all in without a mistake, and the

beauty of the bed will depend much upon the perfect setting. It is scarcely necessary here to say that the varieties employed must be those that bloom at the same time; and also, if possible, those that grow about the same height. In a bed of large size various shades of the same color can be used in different parts. This method of planting



SNOWDROPS SNOWFLAKES AND SCILLAS.

planted bulbs. A rich, sandy soil is best for this plant, but if the soil should be somewhat heavy, it is well to make a deep hole for each bulb, and place some sand in the bottom on which to set it, and then to cover it with sand, so that it shall be about four inches below the surface. Soon after planting the bulbs begin to emit roots, and this root-growth con-

is adapted either to straight or circular beds. Other styles of contrast in round or oval beds will suggest themselves, such as planting in concentric rings of two or three lines of each color, or dividing the beds into symmetrical parts, using a single color for each part.

A good supply of water for Hyacinth beds during spring is a necessity for the best results. In this climate we are so favored with frequent showers that usually no particular provision is needed for this purpose, but it is not so in some parts.

For winter blooming in the house the Hyacinth is almost invaluable. The bulbs can be potted in soil, or set in vases of water, with the base of the bulb just reaching the water, or they can be plunged in moss, that is, set in vases with moss underneath and around them. This last method we regard with particular favor, as thereby a more uniform moisture can be supplied to the bulbs.

One secret of success with the bulbs when treated in either of these ways is to keep them in the dark, and a low temperature, or about 45°, until they shall have made abundance of roots; the time required for this root-growth will be about two months. After this the bulbs can be brought to the light, and into a higher temperature, but, if possible, in one not above 60°; here they will develop rapidly, and throw up their flower spikes. For very early forcing the White Roman Hyacinth should be employed.

The Crown Imperial, *Fritillaria imperialis*, is a most interesting and handsome bulbous plant, producing, early in spring, a raceme of beautiful bell-shaped flowers at the summit of the stem, and beneath a crown of bracts. There are varieties of red and of yellow, and of single and double flowers. The engraving here presented is that of a variety with gold striped foliage, the gold stripe being along each edge of the leaf; the flowers are red, borne on a purple stem. A group of these plants with flowers of red and yellow, and this one with variegated leaves makes a most showy group in the garden at a time when their presence is very cheering. There is no difficulty in their cultivation, as the bulbs only need to be set four or five inches deep in any good garden soil, and they will take care of themselves.

A group of spring beauties is shown in

the bunch of Snowdrops, Snowflakes and Scillas. The Snowdrops, at the right of the engraving, with the single form above and the double below; the Snowflakes, at the left, and the Scillas at the base. All of these are so hardy and self-reliant that once planted in the garden they are almost able to take care of themselves for a long time, only needing the ground about them to be kept from being overrun with weeds. The bulbs should be planted in the fall, and be set about two inches deep. The Snowdrop and the Snowflake, although both members of the great Lily family, belong to different genera. *Galanthus*, the name of the Snowdrop, means, literally, milk-flower, in allusion to its pure whiteness; the Snowdrop's botanical name is *Leucojum*, meaning white Violet. Snowdrop bulbs set in the lawn will do well and make their appearance every year early in the spring, and pass to maturity before it is necessary to cut the grass. They can be scattered about irregularly, and in this manner they appear to fine advantage, never failing to surprise us with their earliness. The Snowdrops and Snowflakes are among the first gifts of spring, but the Snowdrop is the earlier. Both of them may be raised in pots of soil, a number in a pot, set about an inch apart. After potting they should be placed in a dark, cool place, as advised for the Hyacinth. Mrs. BARBAULD well wrote:

Already, now, the Snowdrop dares appear,
The first pale blossom of th' unripened year;
At Flora's breath, by some transforming power,
Had changed an icicle into a flower.
Its name and hue the scentless plant retains,
And winter lingers in its icy veins.

The little, low-blooming *Scilla*, *S. Sibirica*, is a bright, pure blue; *S. campanulata* is lighter in color, with taller flower stems; *S. hyacinthoides* supplies varieties with white, blue and rose-colored flowers, all of which are very pretty. It is better that all of these bulbs should be left undisturbed from year to year, only moving them when a new planting is wanted.

To have our spring flowers we must make preparations betimes. At the north the winters are long enough at the best, and here we should, by all means, seek to have our gardens well supplied with plants of the earliest and latest bloom.



WINTER FLOWERS.

Being somewhat interested in a small florist, sometime since, I asked one of my garden men how he was going on. "Weel, sir," he says, "I dinna think he'll mak muckle oot o' flooers, for ye ken he aye has plenty o' flooers when ither folk has; but when they're owre scarce he has nane, and I tell't him he should just reverse it, and aye ha'e plenty when ither folk had nane, gin he would lift siller at it." What a comprehensive remark, thoroughly Scotch, isn't it?

Presuming that there are a good many lovers of flowers somewhat like my acquaintance, the florist, I have thought a list of winter-flowering plants would not be out of place in the *MAGAZINE* for this month.

If I were writing for professional gardeners I would make out a list of Eucharis, Euphorbias, Gardenias, Stephanotis, Azaleas, Camellias, Ericas, Epacris, Cytissus and a list of winter-flowering Orchids, all of which, more or less, require a professional knowledge and care; but as I am writing for every one, I shall only mention plants that every one may procure at a very small cost, and grow with a very limited amount of gardening knowledge.

First, we have the Abutilons, ranging from white to purple; these, if encouraged in the fall, will bloom most of winter in a temperature between 50° and 60°. Then there is the double-flowering Almond, which, if lifted in the fall and left out in the frost for a time, will force quickly and easily. For a basket-plant nothing is more beautiful than the double Alys-sum. If a few plants are grown on in the summer and the bloom picked off, planted in the baskets in the fall they will be a perfect mass of white bloom all winter. The Ageratum, herbaceous

white, for March and April; if seed is sown of Mexicanum in August, and grown on, it will give a beautiful blue all winter. Now we come to Bouvardias; every one who can give them heat enough, say 55° to 70°, with moisture, should grow them in quantity; plunged out in summer, taken up in fall, potted in rich, light compost, they are superb. Begonias, who would be without them? I grow quantities of Verschaffeltii, rosea multiflora, insignis, Sandersonii, rubra, sanguinea, Weltoniensis, miniata, but the list could be extended at great length. There are also the pretty Browallias, white and blue, if sown early and kept pinched back they give a color very much wanted in winter. Chrysanthemums, beginning with Mrs. Hall in October, and ending with Fair Maid of Guernsey, Abdel Kader, Red Dragon and Grandiflora Japonica in January. Carnations planted out in summer and given sufficient heat in winter are invaluable. Callas treated the same, with plenty of moisture and liquid manure, will be continually in bloom; some have bloomed with me from November to the middle of June. Cinerarias sown in June and July, kept free from insects, cool in summer and warm in winter, will be gay from Christmas to the end of May. The beautiful Deutzias, especially gracilis, should be in every collection; fancy a shrub covered with Lily of the Valley; plunged in summer and encouraged to grow, left out until hard frost comes, it will soon be covered with bloom when brought into heat. Dielytra, or Dicentra, spectabilis forces easily and is exceedingly beautiful. Then we have the Eupatorium of sorts, beginning with odorata in October, and ending with angustifolium in February. Who would be without the beautiful Echeveria retusa, with its beautiful spikes

of waxy bells which stand for months. I grow over a hundred of them; keep them moderately dry and in the sun during summer, and bring them in when they are forming their bloom spikes. The *Epiphyllum truncatum* will also bloom any where, but thrives best with liberal treatment. Fuchsias and Geraniums to bloom well in winter should not be allowed to flower in summer, but planted out, fed and pinched, and allowed to begin to bloom in October, with moderate heat, will bloom all winter. Last winter I cut two large bouquets each week from twelve plants of *Heliotrope*, and the same plants are now, the middle of June, full of bloom in conservatory. The plants were from cuttings struck twelve months ago. *Habrothamnus elegans* and *coccinea* make very nice pillar plants, and if planted out yield a great quantity of bloom. Hyacinths, both Roman and Dutch, should find a home everywhere. Lily of the Valley, if strong crowns are taken up before the frost and heeled in where they are get-at-able, and allowed to freeze pretty well and brought in as you want them, are easily forced. *Libonia floribunda* and *Penrhosiensis* are splendid winter-blooming plants, and to do them successfully you should encourage growth in spring and plunge in the sun all summer, for, if the wood is not well ripened, you will get very few flowers. *Mignonette* Golden Queen, Parson's White, and Miles' Spiral should be grown by every one. *Narcissus Polyanthus*, *Poeticus*, Paper White and the Trumpet forms should also find a place. *Oxalis*, as a basket plant, is very desirable and of easy culture. *Primulas* ought to find a home everywhere. I have had them in bloom from October to present writing. *Poinsettias* should be everywhere; struck from April to June, plunged out and well fed, taken up in September and given 75° heat, their bracts will be gay till far in the new year. *Prunus Japonica flore pleno* is a very desirable shrub and easy to force. Roses should also be included in every list of any size, and with plenty heat, moisture and food, will give plenty of bloom. *Spiræa* (*Hotæia*) *Japonica* should be grown in quantity, as its feathery spikes of bloom are invaluable; the same treatment as the Rose, with a rest of three months in summer, suits it.

Salvias for winter decoration are grand, and so are *Solanums*. I know nothing more handsome than a well grown bush of *Solanum hybridus*, well covered with glowing red berries. *Stevias* should also be grown in more or less variety and quantity, according to the requirements of the place. Brompton and East Lothian Stocks should also be added for spring work, and Tulips should have a place in every home. *Tropæolum Sparkler* and *Boule de Feu*, if trained on a trellis, or planted out to run up rafters, will be gay all winter. *Weigela amabilis* and *floribunda* are very desirable for forcing and well repay a little care.

This brings me to the end of my list. I could have made it considerable larger, but there is sufficient for the requirements of any medium sized place, and all the plants enumerated are cheap, easily procured, and, better still, of easy culture, the greatest essentials being a well sheltered plunging ground, where water is handy, and a little care in lifting and potting in the fall, and shading them from all sun until they have got root-hold in their new pots, before bringing them into the houses.

I grow all the foregoing list myself and can, therefore, recommend them to the readers of the MAGAZINE, sincerely hoping I may have helped some one to a display of flowers during the six months when the rigor of our climate prevents plants from blooming out of doors.—WM. HY. WADDINGTON.

SOME VARIEGATED PLANTS.

Every season brings forth a long list of new plants which are described very effectively in the catalogues of the florists, and the lover of new things and novelties is tempted to invest his spare change in something which he fondly hopes will be a "thing of beauty" for a time, if not a "joy forever." But very often, too often for the good reputation of many of our enterprising florists, the result is a disappointment. The plant that comes to you with a glowing description proves to be like something you have had before, or every way inferior to it, and you sigh over your blasted hopes, and the consciences of the florists to whom you are tempted to apply the same adjective as that which describes your hopes.

But we get good things occasionally,

and I am going to mention a few of them for the benefit of some other lovers of flowers and ornamental plants who may not like to satisfy themselves of the merits or demerits of this or that thing by a personal experience with it.

I have three *Coleuses* which came to me this spring, about whose merits there can be no question. My favorite of the three is *Climax*. It has a bright green leaf, the center of which is a dark maroon, veined with bright crimson. The maroon in the leaf is quite regularly distributed, and leaves a broad margin of clear green. The crimson mid-rib and veins are of a bright, clear color, and contrast well with the maroon surrounding them. In this variety about half the leaf is green. Mrs. Garfield is very much like *Climax*, but has a narrower green edge and a paler center, and is a more robust grower. The other variety is *Retta Kirkpatrick*, and it is very distinct and entirely different from any other *Coleus* I have ever seen. It has very large, healthy foliage, of a beautiful shade of green, marked along the center with pure ivory white. The plant is an unusually strong grower, and it is of great value because of its effectiveness in contrast with dark-leaved plants. I have a fine specimen of the *Coleus*, *Velvet Mantle*, but it is not especially noticeable because of its strong resemblance to *Verschaffeltii*, one of the good old varieties which astonished us so when first introduced, by the peculiarity of its coloring. I have the *Spotted Gem*, also a freakish plant, and one which, if it does not show all the colors of the rainbow, breaks out in many shades of green, yellow, crimson, and maroon in stripes, spots and flakes. It will be sure to please any one who admires a plant for brilliant and eccentric coloring.

One of the best *Begonias* I have had for a long time is *B. metallica*. The leaves are triangular in shape, of a clear, pale green, veined with dark green on the upper side and maroon on the lower. It is a robust grower and gives me quite as much satisfaction as any of the *Rex* varieties which succeed well under ordinary cultivation. I have found the *Rex Begonias* to be unsatisfactory unless one has a place for them where a damp atmosphere can be maintained. In the ordinary living room the old leaves die off

about as fast as new ones are put forth, and the plant never seems to be gaining but merely holding its own.

Another good plant for use in the sitting room is *Anthericum variegatum*. It has leaves about a foot in length and an inch in width, like those of some varieties of *Lily*. These leaves are edged with pure white, and the contrast of colors is very pleasing. The leaves are produced in great profusion, and as they droop over the edge of the pot and spring up from the center of the plant, it forms a perfect fountain of foliage. The flowers, which are pure white, of a star shape, are small, but as they are borne on spikes in considerable quantities, they are quite effective. The plant, because of its great quantity of drooping foliage, is particularly adapted for tall vases, which can be used as centers of groups or singly. It flourishes under the most unfavorable circumstances, such as dry air, dust and lack of water, and seems to be as sturdy and self-reliant as a *Geranium*. It does remarkably well in a north window where very few plants will grow. It requires a soil made rich with well rotted manure and light with sand, and should have a liberal supply of water.—R. F. D.

NOTES FROM MY GARDEN.

Dear MAGAZINE friends: How many of you are discouraged by the cold, wet season. Last winter, the frost king stripped many windows of their bright flowers, and this spring the bedded plants have suffered from frost and floods, while the hope for annuals has been nearly crushed. I have made repeated sowings of seeds of perennials, but still the beds are almost bare, money spent and hope disappointed.

In the winter, I planned for a fine show of flowers, but weeds are about the only crop. A few things, however, that were in last fall are trying to make up for the lack. Last summer I had a little spot covered thickly with *Ranunculus Poppies* in several colors, and now the bed is larger, and the plants firm and of more variety of color, all from self-sowing. The display every morning is very fine, and attracts the notice of men as well as women. This variety of *Poppy* is no coarse, common kind, but the plant is small and covered with hairs, so as to appear massed, while the flowers are

smaller, not as double, and are of finer silky texture than the large sorts, and they are of all shades of red and purple to the purest white. In fact, they are handsome. I have clumps here and there, also, of the large kinds in different colors, to bloom later on, and if the flowers are cut freely every day they will bloom all summer. They are fully as handsome as Pæonies, I think, and last much longer.

Another self-sown seed is *Silene*, which will soon be giving heads of pink bloom in spite of weather. The Poppies are in the broad sun, the *Silene* in partial shade near the Pansies and Daisies. Pansies and Daisies! You see how they flourish. This sort of weather is just their delight, but I could hardly get seeds of Pansies sowed this spring to germinate. I planted in "warm spells" and the seed would swell and look all right, then a cold snap would make them decay. I shall keep sowing all summer if I can afford the seed, for Pansies I will have.

One of the prettiest plants I have in pot is *Petunia*, Countess of Ellesmere. It is spread on a trellis six inches wide by three feet high, then nipped here and there to make it throw out shoots and flowers from bottom to top, and it has been one bouquet all the spring, and I hope to keep it so through the winter, simply by constantly cutting back. Is this the kind of weather for *Heliotropes*? Mine never did so well as this summer, out of doors.

I have just been reading Mr. ELLWANGER's article on Roses, in the *Century Magazine*, for July. The descriptions fill me with delight, but when I undertake to grow the beauties I find they have too many lovers. Just now the green-fly is my worst rival, and he vexes my life away. I do not give up, but I long to enjoy the charms of a Rose in peace, but fear I never shall. I have eighty Carnations looking fine, from seed of one package, and expect them to make a fine display next spring. I have very thrifty blooming plants now from last year's sowing. When one learns the way of Carnations it is very easy to grow them, and they are so beautiful and sweet. Yet, after all, I advise all novices in flower culture to let them alone and grow the hardy Garden Pinks instead. I mean such as used to be called Grass Pinks, but now known better as Florist's

Pinks. They need but little care, are in variety of color, very fragrant and much more hardy and longer lived than the Carnations. In fact, they are not disappointing in any way, excepting when the little black ants nest in the roots. If the pests are seen at work it is well to dig up the Pinks, no matter if in mid-summer, rinse the roots in cold water and plant in a new place, being careful to shade from the hot sun until they lift their heads. Pinks and Pansies and Roses and—and—and, there's no use beginning to enumerate—should be in every woman's garden, no matter if she have mountains of work to do. When she takes her sewing by the open window her eyes should rest on God's beautiful flowers, and her tired nerves be soothed by their swaying green and their delightful perfume. If every one would make war till we are safe from roaming stock, the children would soon learn to care for a spot of color here and there to make home pleasant. When the cow and the pigs have access to the back door and the front walk, a lawn for the beautiful can not be cultivated.—ROSINA A. HOLTON, *Smithville, Ill.*

HOUSE PLANTS FOR EVERYBODY.

I have often found persons in my rambles about the country who loved flowers, but were not able to obtain such plants as they supposed they must have in order to have flowers in the winter. "House plants," as a term, has come to mean, to most persons, Geraniums, Fuchsias, and other greenhouse plants. Now, I want to tell some of your readers what I know about some very common flowers as house plants.

I have always been afforded great satisfaction by the *Petunia*, not the double ones, but the ordinary strain grown in the summer garden. Every season I prepare a plant or two for winter use. I start them in August, taking cuttings from such varieties that suit me best. By the time cold weather comes, I have nice, thrifty plants, which generally begin to blossom as soon as brought into the house. Put in a sunny window they will fairly run riot, and you will have flowers by the dozen. When the blossoming branches have grown to be long and slender, cut them back within five or six inches of the top of the pot, and

new ones will start at once. Petunias are not often troubled with aphid or red spider, and dry air does not to affect them much. I generally grow mine as basket plants, letting the branches droop. Some prefer to fasten them to a trellis. In either way they grow well. They will furnish a crop of flowers all winter, and their bright colors make any room cheerful. If you have no other flowers at hand to select from, take half a dozen into the house for winter use, and I warrant you much pleasure from them if you do not let them freeze. They flourish best in a rich soil to which considerable sand has been added. The single kinds are much to be preferred to the double ones for ordinary rooms, as they bloom more profusely, and their buds are not likely to blast.

The Chinese and Japan Pinks are very good plants for the house, if you select young plants which have not exhausted themselves by blooming. Cut off all buds when you pot them. Keep them in the coolest window you have. They will begin to bloom in January, and from that time on you will have many flowers. Perhaps you will have to fumigate them occasionally, to keep down the green-fly, but that is not much of a task if you have a tight box into which you can put your plants, with tobacco scattered over coals in a dish in the bottom. It is always best to dampen tobacco before using it for fumigating purposes, because it gives off a denser smoke, and does not burn up so quickly. Any one having many plants will find the "smokers" used by bee-keepers just the handiest thing they can get for fumigating. The tobacco can be lighted in the tube, and the bellows at the end forces out a strong blast of smoke, which can be directed where you see fit to have it go.

Verbenas can be made to bloom all winter if new plants are used. They are not so easily managed as the Petunia, on account of a liability to rust or mildew; but I have found an occasional dusting of the under side of the leaves with sulphur to be a pretty sure preventive of this trouble. I do not wait for the rust or mildew to make its appearance, but use the sulphur to guard against it.

Stock, or Gilliflower, will bloom well in the house. I would select a double plant, and pot it as soon as the character of its flowers was ascertained. On pot-

ting, I would cut it back and keep all buds pinched off through the summer. The pot can be sunk in the border until frosty nights come. Keep in a cool place. You will find it more satisfactory than many greenhouse plants.

The Nasturtium will bloom constantly in a sunny window all through the winter, if too rich a soil and too much heat is not given. If they are, too rank a growth will be forced, and you will have but few flowers. It makes a very brilliant plant for the window, its scarlet and yellow flowers contrasting well with its bright green foliage.

Sweet Alyssum makes a most charming plant for a hanging basket, if you sow seed in August; or, very likely, you can find young plants in the garden coming up from self-sown seed.

My favorite of all garden flowers for house use in the winter is the Ageratum. It is of such a delightful color and stays so long in bloom, and produces such a profusion of flowers that I would not willingly be without several plants of it. It is likely to be attacked by the red spider if you do not take pains to keep the foliage moist; but if you are not willing to take a little trouble for your plants you ought not to attempt growing any. Some persons seem to think that all they ought to do is to put a plant in a pot and put the pot in the window. After that they expect it can care for itself, and furnish profuse quantities of flowers; if it fail to, they blame the poor thing for what they alone are responsible. Such persons ought not to have any plants. They generally do not have long at a time.

The Browallia, with its bright blue flowers, is a pretty window plant. It will need cutting back occasionally to induce the growth of new branches, but beyond that it will not require any particular attention.

You see we have the means of beauty through long and cheerless months at our own door, if we will only take advantage of it. We need not be without flowers because we cannot get the more expensive varieties. They are not always the best. Be thankful for the commoner kinds, if they are all you can obtain, for the commonest one will be powerful in brightening and beautifying home. "Despise not the day of common things."—EBEN E. REXFORD.

THE PEARL BUSH.

A most beautiful hardy shrub, as yet but little known in this country, and of which an engraving is here presented, is called the Pearl bush, in England; it has received this name from the resemblance of its little flower buds to pearls. The plant was first made known by Mr. FORTUNE, who found it in China, and introduced it into England in 1845. It belongs to the great Rose family, and bears the scientific name, *Exochorda grandiflora*, from Dr. LINDLEY. It was at first sup-



·EXOCHORDA GRANDIFLORA.

posed to be an *Amelanchier*, and afterwards was called *Spiræa*, but its different aspect from other *Spiræas* led to a closer examination, with the result of establishing a new genus.

The plant grows to be eight or nine feet high, with a bushy form. It blooms in May, continuing in flower, more or less, for nearly two months. The snowy white flowers are borne in long, gracefully bending panicles, frequently branched. The flowers are here shown natural size. The leaves are ovate-lanceolate in form, distinctly veined, and of a shining green.

It is a plant that is destined to be much employed, but it has not yet been sent out very freely, as its propagation has been imperfectly understood; but, although somewhat more difficult to increase than some other plants, it may be raised from green cuttings taken from plants grown in the house.

THE FUCHSIA.

Who has seen the *Fuchsia* and not admired its glowing loveliness? Its rich, ruby sepals and the deep purple corolla blending so beautifully with the dark green, crimson ribbed foliage. How gracefully the blossoms droop; the showy calyx, beautifully recurved, disclosing the rich, bell-shaped heart; below, the long, graceful pistil, surrounded by a delicate cluster of stamens, each carrying its little anther dusted with purple pollen. What a lovely flower, you exclaim. Yea, verily, the loveliest of the lovely; few to equal it, none to surpass. For amateur culture few flowers recommend themselves more highly. A little cutting placed in moist sand will quickly root itself, and on being repotted and placed in a shady situation will, in time, evolve into a perfect wilderness of bloom, and to reach this end, comparatively little attention is needed. Some care in watering regularly, pinching back stray branches, and a stick to support it if growing too rapidly, is about all that is necessary, with, perhaps, the exception of a few possible requirements which will readily suggest themselves. For window culture, however, they need a somewhat higher

temperature to make them bloom during the winter months; otherwise they may grow, without blossoming, although, where sufficient heat is obtainable, the profusion of beautiful "flower bells" will rejoice the culturist as long as winter lasts. However, it is best not to let them bloom too much, and after the flowering period is passed they should have a rest in the cellar, or some other convenient place, taking care to withhold water to the extent of barely keeping the earth moist. When they show signs of fresh growth they should be brought to

the light, and after being cut back severely, given plenty of water. Never be afraid of cutting back a Fuchsia too much, as the more it is pruned the greater will be the probability of obtaining a strong growth and profuse bloom. The more flowers and cuttings you take from it the better it will grow, and this will apply alike to all the varieties. In regard to what sorts it is best to cultivate, it is difficult to say which are the most beautiful of the different varieties; but those of distinct contrasts, such as crimson and purple, scarlet and white, white and blue, etc., were always my favorites. At the same time, there are some exceedingly beautiful variegated ones, both in flower and foliage, which are very attractive. Some of the improved purple sorts are as double as a Rose, and fully as beautiful, in my opinion, although, of course, they do not possess the delightful fragrance.

Fuchsias, as a whole, seem to be divided into two distinct classes, viz.: those with crimson sepals, and those with white. It is a somewhat curious, as well as remarkable, fact of this latter, that the professional florist has never been able to coax into existence a double variety, while of the former we have an abundance of purple, white, blue and brown corollas, some of them very double. If any one ever succeeds in producing a double Fuchsia of the white sepaled class, he will undoubtedly pocket a mint of money. Apropos, we remember seeing, a few years ago, a Fuchsia resembling in color the well known Arabella, pink and white, that was composed of two distinct blossoms welded together, as it were, side by side, and presenting a very odd appearance. The possessor of the flower spoken of remarked that the entire plant produced blossoms similar to the one shown, and it was consequently no sport or malformation. However, for beauty, the single flowered species is much to be preferred to the "Siamese twin" variety.

A few years ago there appeared in *Harper's Magazine* an entertaining story based upon facts, regarding the first introduction to floriculture of the now well known Fuchsia. It described how an honest sailor lad had procured in the tropics a single plant of the red and blue variety, and after tenderly caring for it

during a long voyage, often going short on his allowance of water that the plant might survive, presented it to his widowed mother in England. It was placed in a sunny window and seemed to take kindly to its new home. After a while it became covered with lovely red and purple bells, and attracted the attention of a passing gardener, who finally bought it at a high price, and after increasing his stock by cuttings, sold the plants for a guinea apiece. The money obtained for the plant enabled the widow to live more comfortably while her son was away on his next voyage, and the story, which is pleasantly written, is made into a romance, in which the gardener finally marries the sailor lad's sister, and lives happily ever after.

The Fuchsia's native home is on the western coast of South America, and was originally brought from Chili. It was named in honor of a celebrated German botanist by the name of Fuchs. In floral parlance it is the emblem of bridal joys, or, in other words, means a proposal of marriage.—HARLEIGH GILLETTE, *Highland Park, Ill.*

IN THE WOODS.

If you would know the sweetest rest
With which a weary man is blest,
After a day of happy toil,
Forsake the city's wild turmoil,
In summer, friend, and go with me
Into the woods. Our bed shall be
Of Hemlock branches and of Pine,
Fragrant as incense at a shrine.
The trees shall roof our dwelling o'er;
We need no bolt, no bar, no door,
For no intruder comes to break
The quiet of the scene, and make
Our slumber restless. All the day
We haunt the nooks where shadows play
With sunshine games of hide and seek
Among the Alders, by the creek.
We bait our hooks to lure the trout;
What sport to draw the shy things out;
We quite forget that time goes by,
The sun sinks down the peaceful sky,
'Tis dusk before we know it. Then,
Reluctantly, we leave the glen,
Wherein we have forgotten care,
All but the finny dwellers there.

We climb the hill with weary feet;
How tired we are! "Too tired to eat,"
When we get back to camp, we say.
Strange! for we did not think all day
Of getting tired. At last, outshines
The camp-fire through the towering Pines.
How far it seemed! The path is rough;
This morning it seemed smooth enough.
At last, we reach the camp. "What luck,"
Our greeting is. We show our fish,
Tell where and how each prize was struck;

While, sputtering in its shallow dish,
We smell the supper that shall be
Fit feast for gods, or even me,
And quite forget all weariness
At prospect of the savory mess.

If I made banquet for a king,
Hither my royal guest I'd bring;
I'd heap the camp-fire high, and make
An isle of light, girt round about
With sea of darkness. I would take
The finest of my speckled trout
And fry them crisp and brown, and brew
A fragrant pot of good Bohea;
These, with Potatoes roasted through,
Beneath the ashes, sir, should be
The bill of fare that I would lay
Before my guest, the king, and say,
"Set to, and help yourself, I pray."

We eat with zest ne'er felt before;
We eat till we can eat no more;
Then, gathered round the fire, we sit,
And season talk of trout with wit;
The yearly tales are told again,
Of two-pound trout and two-pound ten;
Of larger ones—that got away!
And each one fills his pipe of clay
With the Virginian weed, and smokes
To counteract his neighbor's jokes.
The wind is singing in the trees
A song of fine, sweet harmonies;
Perhaps you hear the creek's low laugh,
Or seem to hear, and dream it half,
While thinking of to-morrow's fun
And fish, before to-day is done.

Then silence falls upon the group
About the fire. The flame dies low;
The trees about us seem to stoop,
While dim and dimmer all things grow;
"Time to turn in, boys." Then we yawn,
Stretch rested limbs, take off our boots,
And think we will be up at dawn,
Or sooner, if the owl hoots
To break our slumber. Then we seek
Our bed of boughs. How sweet the smell
Of Pine and Hemlock, as we speak
Our brief good nights. 'Tis like a spell
That wraps our senses in repose.
We draw our blankets round us close,
And then, while thinking, we forget
To think, and slumber's seal is set
Upon us, and our sleep is sweet—
Of that of children merry grown,
A rest refreshing, and replete
With strength and vigor long unknown
To dwellers in the noisy town,
Where poor men rise ere rich lie down,
And all night long the city's din,
With troubled dreams comes creeping in;
A rest that makes of many men
New creatures, as if born again.

—EBEN E. REXFORD.

THE MARLBORO RASPBERRY. — The Highland Hardy is the Raspberry most cultivated in this region, and has proved superior to all other varieties; but it is probable, from the tests already made in a few instances, that the Marlboro will take its place as the most profitable.—I. H., *Cornwall, N. Y.*

VALOTTA PURPUREA.

Valotta purpurea, or as it is more generally known, Amaryllis purpurea, is a native of the Cape of Good Hope, where it is said to be found growing in the greatest abundance in wet, boggy places. It was introduced in 1774.

As its name would apparently indicate, the flowers are not purple, but of a brilliant scarlet color, and are produced in spikes, each spike consisting of from four to seven large, crimson, cup-shaped flowers, which remain in perfection for a considerable length of time, if properly cared for. It most generally flowers from August to October, but where a person has a considerable number of plants it is not an uncommon circumstance to find a flower spike on some of them at any season of the year.

The Valotta is a very useful plant for the window garden, and, moreover, is a plant easily cultivated, doing well in a compost of two-thirds well-rotted sods and one-third old manure, well mixed; give good drainage and be careful not to overpot the plant. It is generally grown in masses in shallow pots or pans, and with very satisfactory results, well grown masses often having two, three or more spikes open at a time, but I find that the flowers are much larger when each bulb is confined to a single pot, and all offsets removed as soon as they are noticed; a four or five inch pot being amply sufficient. As the Valotta is strictly an evergreen, bulbous plant, it must be kept in a growing condition at all seasons; water must be supplied at all times, yet in the winter season do not supply it so liberally. In the winter it requires a temperature of from 40° to 50°, and, if possible, given a light situation. In planting the bulbs do not bury them too deep, two-thirds of their depth being amply sufficient.

The Valotta is by some grown in the flower border, planted out about the first of May, and taken up and potted after the first slight frost, the plants being treated as above advised. But as the flowers are of so short a duration when grown in the open air I do not advise the adoption of this plan.

Propagation is effected by offsets, which may be carefully taken from the top of the bulb without disturbing it in the least, and placed in shallow pans of light, rich soil. These offsets, if liberally

treated and gradually repotted as often as they become of sufficient size, will soon form fine, flowering specimens. The Valotta does best when its roots are not much disturbed, therefore, do not repot the plants often. Once in three or four years will be sufficient for the bulbs in three or four inch pots. In repotting, remove all soil from the roots and pot in fresh soil, using, if necessary, the same pots, which should be washed clean, however. Large masses do best when shifted into larger-sized pans every four or five years. During the summer frequent applications of manure water, with an occasional top-dressing of fresh soil will be found beneficial. The generic name was given in honor of PIERRE VALOTT, a French botanist.

It seems scarcely necessary to add that flowering plants of the Valotta can be used for decorative purposes with very satisfactory results, that the flowers will last longer if sheltered from the influence of the sun and rain, and that good strong flowering bulbs can be cheaply obtained from any of our principal seedsmen or florists.—CHAS. E. PARNELL, *Queens, L. I.*

SHORT LESSONS FROM NATURE.

There are some mistakes made so commonly by our farmers in connection with native trees and shrubbery that I am constrained to call attention to some of them that have come under my observation.

Of all the trees that adorn our roadsides the most beautiful and attractive are those which have sprung up naturally and grown with little modification at the hands of man. Yet, I have noticed a quite common practice, that these trees are sacrificed, and in their stead are placed straight lines of Elms or Maples at regular distances from each other, which require years to grow into even a semblance of the native beauty of the specimens cut away to give them room in which to develop. In Michigan the Oaks are very numerous, and often times six or eight species will be found growing along the rail fences on either side of the highway within a single mile. They arrange themselves naturally in attractive groups, often with a sprinkling of other trees.

It is a public calamity to have a man come into a neighborhood who has a

genius for "clearing off," who will, perhaps, denounce the shiftlessness of his predecessor, and remove the old rail fence with all the trees and shrubbery and vines, putting in a line of straight board or wire fence, and a row of Maple trees exactly eight feet in the highway and sixty feet distant from each other. I have no more patience with shiftless, careless methods than any one else; but I do contend that men of good taste can build out of these hedge rows a most delightful border to the highway. A group of Hazel bushes, Red Osier, or Sweet Elder, may add materially to the attractive appearance of the roadside, and the variety which nature gives in the irregular grouping of trees finds a very poor substitute in the formal line of planted street trees.

I understand the objection made to having trees and shrubs upon the roadside as taking the fertility from the soil for some distance in the adjoining field, and although temptation is always uppermost to meet this with the question, whether the added satisfaction of an attractive roadside will not be adequate compensation for this loss, still the utilitarian argument on the one side may be met by one of the same sort on the other. There is not an unprejudiced man who can travel through our State and will not own the advantages growing out of the protection of these lines of trees, and the loss sustained by preserving them, but must be convinced that outside of any æsthetic argument, the burden of proof is in favor of the trees.

In planting about our rural residences enough attention is not given to the beautiful combinations of native trees and shrubs and vines, as exhibited in our wild woodlands, marshes and along the undisturbed borders of our streams. Oftentimes we will pet an exotic, by giving it all possible attention, protection and loving care, only to be disappointed in its meagre growth and shabby appearance, when, if we had taken half a day in the woods with an eye for beautiful forms, regardless of the commonness of the material, we could choose specimens that with little care would prove an adornment to our premises, and would arouse exclamations of appreciation from people of taste, who would very likely inquire from what nursery the beautiful

specimens was secured. I saw in the woods, the other day, a wild Grape covering a Thorn, making a delightful canopy beneath. I thought it exceptionally beautiful, and upon close examination saw it was not merely a Thorn and Grape, but entwined among the Grape leaves new sprays of Virginia Creeper, and to enhance the effect a shrubby Bittersweet had turned about the body of the Thorn. This was a rare combination of native beauty, but how easily imitated on the lawn. Only last week, while tramping "across lots" to save time, I actually gained nothing in time, because my attention was attracted to an unkept corner of a field, where I unraveled the following combination of plants that would have been a delightful embellishment to any rural premises. Evidently an Oak and a Sassafras tree had been cut down a couple of years ago, and from the stumps had sprouted a wreath of new growth. A Bittersweet and Green Brier had climbed among the shoots and from their weight of foliage had caused a number of the branches to droop gracefully. In front was a group of the taller-growing wild Roses in full bloom, at the base of which a carpet of the wild trailing Dewberry was laid. The whole of this was under a canopy made by the drooping branches of our wild Cherry. In all probability the bush scythe will, before the summer is over, destroy this delightful picture, and somebody, in commenting upon the thriftiness of the farmer, will observe that he looks well to the clearing out of his fence corners. But I have had my study, and a pleasant memory of the delicately arranged group will remain with me. I enjoy seeing a neat farm with no appearance of shabbiness upon the premises, but oftentimes I cannot help but deprecate the spasm of neatness which removes, perhaps, the only really beautiful thing about a place.

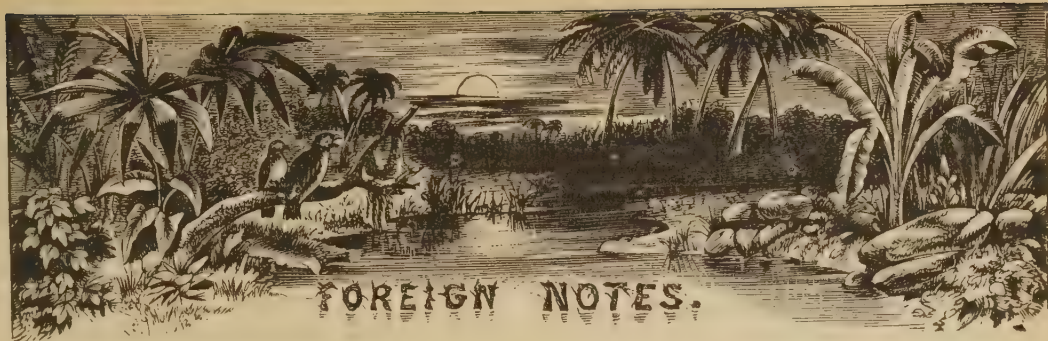
One point more I wish to make. In gathering the beautiful things from our own woodlands, marshes and wet places, and arranging them about our houses we find a delightful study, especially for the children, in learning the names of each specimen thus transferred. In chatting with children, and even teachers, as I visit the schools that have been placed somewhat under my care, I am surprised to find so great ignorance of the names

of trees, plants and flowers that grow abundantly in the neighborhood. Lessons concerning these things which every day come under the eyes of the little people will prove of more value afterward in getting enjoyment out of life than a majority of the lessons conned in the books at the desk.

I only wish that all persons could be induced to educate their eyes to see the attractive natural objects about their own neighborhood, and spend less time wishing for money to adorn their premises in some artificial way, like another who spends a great deal in pseudo-embellishments, which oftentimes is but a caricature of nature.

SPINACH.

A little experience I had with Spinach, last season, may be of some use to your readers at this time, therefore it is offered without apology. Wishing to secure a good bed of Spinach for a large family and some for our village, I prepared a piece of land for it, and had it in readiness to sow by the tenth of September. It was pretty dry at that time, but the seeds germinated after a short time, and some timely showers gave the plants a start. The soil had been made rich by a good dressing of old stable manure, and it was where a crop of early Potatoes had just before been removed, and for which a good manuring had been given in the spring. It was so mellow that the roots could run freely, and they seemed to enjoy the situation, for, although the weather continued quite dry, the plants grew, and as the frosts kept off until nearly November, my Spinach became fit for the table and much of it was used, fearing it might be destroyed, or at least injured, in winter after so rank a growth. It did not keep well, and it was not as good in the spring as it usually is when making less growth. As this season has been late and cool, and is thus much like the last, it seems probable that we may have another late fall. Though I shall sow some of my Spinach ground as early again, I shall, as a precaution, reserve a part of it for the very last of the month, hoping by this means to bring the crop through in the best condition, or at least a large part of it, whether the winter should set in early or late.—P. B. B.



POT ROSES.

A market grower in the neighborhood of Paris has a method of treating pot Roses which is said to insure their flowering a second time, with a vigor and profusion almost or quite equaling the first display. By the system followed the plants are subjected to a forced rest as soon as the flowers fade, which is accomplished by keeping them under cover, and for a time almost entirely withholding water. In the course of a month or so they are pruned, shaken out and fresh potted, or simply watered with manure water, when they start away into growth again, and bloom finely at the close of the summer or early in autumn when Roses are scarce. In this way the plants are in blossom at those seasons of the year when the out-door plants have either not commenced to flower or are nearly past, and are resting just when they are least needed. It may be thought that this treatment would be so far exhaustive as to render the plants of but little value for another year, but we are assured that this is not the case, and that scarcely any difference is perceptible between plants which have thus bloomed twice in the year and such as have been allowed to recruit in their own natural way. This, if true, is by no means so surprising as it would be in the case of many other plants, as we know some Roses flower abundantly naturally in the autumn, and push into growth with undiminished vigor the following spring. We see this in the case of such kinds as the old Glory, Aimee Vibert, Adam, Celine Forestier, the Chinas, and others, which never under good culture seem to get tired of producing bloom. We also know that the class of Hybrid Perpetuals yield, with liberal treatment, a good secondary bloom.—*The Garden.*

A NEW CLEMATIS.

The English journals announce a new variety of Clematis that promises as much future fame and usefulness as its parent, Jackmani. Just how this progeny was produced we do not yet learn, though from the accounts it may be proper to infer it is a sport. This new claimant for honors is white and bears the name C. Jackmani alba. It is the experience of all who have tried several of the large-flowered varieties of Clematis that none of them is equal to C. Jackmani in hardiness, vigor and profuse blooming; all of these qualities are claimed for the new variety. The *Gardeners' Chronicle* says: "So far as one could judge, it could not be distinguished from C. Jackmani, except in its blossoms. It flowers on the shoots of the current season's growth; its blossoms are mostly produced in pairs, one shoot bearing ten pairs and a terminal flower, and, as in Jackmani, as soon as the first flower dies off a cluster of buds spring up in its place. The petals number four to six, and are faintly pink-tinted at first, becoming pure white with age. C. Jackmani alba is the hardy climbing plant of the season." It unanimously received a first-class certificate when exhibited before the Royal Horticultural Society in July.

THE COMMON BRAKE.

A writer in the *Gardeners' Chronicle* gives the following good account of the use, in gardening, of *Pteris aquilina*:

"This beautiful native Fern is so well known that it may seem unnecessary to call the attention of your readers to its merits, but that is not by any means the case, as but very few are aware of its great value as a decorative plant for the embellishment of the flower garden and pleasure grounds. Having recently had the

pleasure of looking through the gardens at Munstead Park, near Godalming, the residence of Mrs. JEKYLL, I was delighted with the effect produced by the aid of this Fern in the grounds there. Here 'feathery Brackens fringe the rocks.' Yes, and the beds and paths, too; fine breadths of it interspersed with stately groups of Mullein and white Foxgloves, large bushes of Sweet Brier, now covered with blossom; groups and single specimens of the Birch and Scotch Fir, single and double Furze, masses of Poppy, of red Foxglove, Alstrœmeria, Lilies, Scotch Roses and Delphiniums of every shade of the most dazzling blue and purple. These are principally the materials used to produce garden scenery of surpassing beauty—materials that are within the reach of almost all who have a garden to beautify. But what struck me most particularly in these gardens was the very clever but apparently simple manner in which commonplace things are employed, with such fine effect, to show up and heighten the beauty of the natural features of the place, especially the liberal manner in which the Bracken is used, and the prominent position it holds as a decorative plant—a position, as here demonstrated, it so richly deserves."

NEW PLANTS.

Among other new plants that received certificates of merit at the July meeting of the Royal Horticultural Society, as noticed in *The Garden*, is *Lilium pardalinum* Warei, "a distinct and pretty variety of the Panther Lily. The habit is similar to that of the type, but the flowers are much smaller, of the same turban-like shape, and of a clear, spotless yellow of a warmish tone." Shown by Mr. WARE.

Those who prize the beautiful pink *Spiræa palmata* will be pleased to learn of a snow-white variety of it "the spreading plummy flower heads of which have not a trace of color in them. It is a lovely plant and a charming companion to the rosy-pink typical form."

Ficus elastica alba variegata, is a new variety of the common India rubber plant, in which the foliage is handsomely mottled with various shades of yellow, creamy white, and green, rendering the plant a very striking one."

A common hardy plant of our rich woods and thickets has, it appears, been

under cultivation by Mr. WARE, and by raising seedlings and selecting he has at last obtained what is considered a meritorious novelty. *Actæa Spicata fructo-rubra*, is "a variety of Baneberry, having, at this season, dense clusters of bright red berries on spikes overtopping the foliage. It is a perfectly hardy perennial, and a most effective and handsome plant."

A EUROPEAN SEED FARM.

An account of a day's visit to the great seed farms of Essex, of the renowned seedsmen of London, Messrs. CARTER, DUNNETT & BEALL, has lately been given by a reporter in an English journal. The farms comprise an extent of 1500 acres. As a sample of the different crops the average of the following is given: two to three acres of Collinsias, five to six of Candytuft, ten of Nasturtiums, ten of Parsnip, twenty to thirty of new Peas—Stratagem, Telephone, &c.; fifty of prize Wheat for seed, two to three of blue *Nemophila*, ten of Sweet Peas, one hundred and fifty of Cabbage, one hundred of Long Red Mangel, one hundred and fifty of Yellow Globe Mangel, three to four hundred of Swedes and Turnips, one hundred of Radish, twelve hundred of Peas. You will see strips of several acres, each containing the distinct varieties of the beautiful dwarf Nasturtium, many of which have been cradled on these farms; *vis-a-vis* will be found probably ten or a dozen acres of Parsnips, or similar acreages of Celery or Broccoli; again the eye rests upon a distant area apparently covered with a cloth of the richest virgin gold—this, upon nearer acquaintance, proves to be a large acreage of *Eschscholtzia*, and at a short distance from this is another great breadth of the "Mandarin" variety, a blend of pure yellow and orange crimson. Again the eye rests upon a broad belt of Sweet William, rich in every shade of color peculiar to this old-fashioned yet beautiful plant, but novel in this instance by reason of the evenness of outline and general perfection of form, many of the flowers rivaling the handsomest Auriculas; the edges, instead of being unevenly fringed, as with the old varieties, are straight and even. There is also to be seen something like ten acres cropped with the varied and beautiful colors of Sweet Peas, such as Invincible Scarlet, Butterfly, &c.



CANDLE PLANT—LOUSY PLANT.

I send you by mail, to-day, a small box containing two plants for name. The tuberous plant was sent to me by a friend, labeled *Plectopoma*, but from what I have read of that plant I hardly think that to be the proper name. The other one was marked Candle Plant; is that the right name? Please say what treatment it requires; it grows finely for a time and then the leaves wither up. I also send two leaves of *Laurestinus*; can you tell what affects the plant. The plant is growing, but the old leaves all have the same appearance.—MRS. S. S. B., *Upper Sandusky, Ohio.*

The tuberous plant apparently was correctly marked. The one marked Candle Plant is commonly known by that name. It is *Cacalia articulata*. It is a plant that has been but little cultivated in this country, and only as a curiosity, for it is quite odd. Some years since, a writer in an English journal gave his experience with this plant, and, as it is quite to the point, it is here introduced.

"I entertain a liking for quaint plants of this kind; they are singular in form and easily grown. Such is the Candle Plant, which I have until lately merely regarded as a curiosity, giving it little credit for decorative value. I was, therefore, somewhat surprised to find that it could be grown so as to develop considerable capabilities in that way. The plant itself is rather singular as regards growth. It has a straight, cylindrical, fleshy stem, of almost uniform thickness, but tapering abruptly at the apex. Its leaves, which are produced on the current season's growth, are deeply lobed, and the whole plant is of a clear, glaucous green, and covered with a delicate, powdery bloom. At the commencement of summer the leaves die right off, and this is the time to form a specimen, which may be affected in the following manner: Take a four-inch or six-inch pot, drain it well, and fill it with a good, light soil compost; in this insert the stems, putting

several of the longest in the center, and arranging the remainder somewhat irregularly, according to their length, finishing off by placing a row of the smallest round the edge of the pot. There will be no difficulty in finding stems of the required height, as some will be composed of several joints, the growth of successive years. Place the plant in a greenhouse or frame, or in the window in the full sun, and keep the soil moist; they will soon root and begin to grow. By the beginning of winter we shall, therefore, have a very pretty and unique specimen, which will be a source of pleasure the whole winter through. It thrives well in a window and requires but little attention, bearing, without apparent distress, any neglect in the way of watering to which it may be subjected. Although the flowers are by no means showy, they acquire some little value from the fact of their beauty being produced in mid-winter, when blooms of any kind are so welcome."

The *Laurestinus* is infested with insects and quite dirty from them. There are two kinds of aphids on the leaves. We should first syringe the foliage well with weak tobacco water, and afterwards wash the leaves with soft soap and water, brushing them with a soft brush. All the leaves on the plant should be washed, handling each one separately. It will probably take a little time, but it will make thorough work. The *Laurestinus* is an excellent house plant, but at least once a week it should have its leaves well sponged with clear water, and two or three times a week be syringed. This will keep it clean and free from insects. We do not consider the *Laurestinus* to be a difficult plant to keep clean, but it should receive a syringing and sponging occasionally.

DISEASED VIOLET LEAVES.

Enclosed you will find a leaf of the double Violet, Marie Louise, in a diseased form; if you have the time to spare, I would like very much to know the cause of this disease, as they call it in this village, and if it can be got rid of. This disease first comes on by the leaf turning yellow, then the spots appear, and it begins to decay with a bad smell, especially in the morning while the dew is on them. After sunrise they look bright until nightfall again. I have tried most everything in a dry and liquid form, without any success whatever.—T. R., *Inwood-on-Hudson, N. Y.*

The "disease" here complained of is a fungus growth, and the best means of preventing it is by maintaining the vigor of the plant at a high standard. In other



DISEASED VIOLET LEAF.

words, the plants should be manured and cultivated so that they shall have the best chance to escape the attack of this fungus, which usually visits those plants that are somewhat enfeebled. The best disposition to make of the affected leaves is to cut them off and burn them. The fungus can be somewhat kept in check by the use of flour of sulphur. The powder can be applied by moistening the finger and dipping it into the sulphur, and then pressing it on the diseased spot. It will also be well to sprinkle sulphur over all the foliage of the plants as soon as the fungus is first noticed. Immediately after, commence the use of liquid manure, giving a supply once a week, at the same time hoeing, in order to stir the soil about them. The liquid manure can be made from soot, stable manure or guano.

PRIMULAS AFTER BLOOMING.

Will you not tell us, some time, what to do with Primulas that have flowered in the house all winter? I have looked through all my three volumes of the MAGAZINE, and that is the very place where they leave off.—M. L. S., *Quincy, Ill.*

It is customary to throw away plants of the Chinese Primrose that have bloomed one season. The flowers are so much finer on thrifty, young plants of the same year's growth from seed that old plants are not considered worth the trouble of keeping over. A young plant can be reared as easily as an old one can be cared for. It is, however, the opinion

of some gardeners that old plants properly cared for will produce more flowers the second season than the first, though they may be somewhat inferior in size, and they are, therefore, occasionally kept over, or, at least, some of the best plants are selected for this purpose. The latter part of spring the plants to be kept should be turned out of their pots, the ball of soil be reduced, and be repotted in the same sized pots with good fresh soil. They can then be set in a cold-frame, and shaded when necessary, and started into new growth. As soon as the plants become re-established expose them fully to the sun.

MY EXPERIENCE.

When I received my July MAGAZINE I was pleased to see you so kindly answered my questions on page 214. This spring, I pruned without mercy, and heavily manured all my Roses with splendid results. Several flowers on the Washington blasted, however, but at this time, July 19th, it has twelve fine, full blown Roses on. I am an enthusiastic lover of flowers, and cultivate with the view of bringing them up to the highest standard of their kind.

In one number of the MAGAZINE is this expression, "One of the greatest pleasures in gardening is raising plants we have never cultivated before and observing their habits." To me it is a great pleasure to watch their habits and growth, and not a day goes by but I look at my flowers to see if there is any enemy at work, or if they are in a healthy, growing condition; and, if needful, I go right to work to find out the cause of any difficulty, and its remedy. Although we live on a farm and have a large family to do for, yet I am determined to find time to care for my flowers. I have a Gold-banded Lily that sent up a stalk two feet high with two immense buds on it. The evening they opened, June 27th, I measured the flowers, and found them seven and a half inches across. Now, is that not an unusual size? I never saw one before, and it was with great pleasure and interest that I watched it from day to day. I had one La France Rose, just as pretty as the one in June MAGAZINE. I am very proud of the bush, though it is small, in fact, I am proud of all my flowers. I intend to get some subscribers for the MAGAZINE; I must have it, and am willing to work for it.—S. J. H., *Swedesboro, N. J.*

Success is sure to attend all efforts of gardening if engaged in in the spirit indicated by this letter; and the pleasure that accompanies success is far more intense and satisfying than it would be if the same results could be reached without effort, care and watchfulness. The experience gained in this case in pruning Roses will be the key that will unlock the secret of Rose-pruning generally, and will lead to greater success in the future in Rose cultivation. Larger blooms of Auratum Lily will probably be obtained than those here mentioned.

FINE AURATUM LILIES.

In the fall of 1881 we had from Mr. C. L. ALLEN, whose gardens were then in this place, unusually fine, large, healthy bulbs of *Lilium auratum*, evidently not long out of the ground, and planted them at once, deep, fully fourteen inches, according to the teachings of your GUIDE and MAGAZINE. One of them sent up, last summer, a good stalk, bearing nine large flowers, and this year three stalks, each fully five feet high, bearing, respectively, nineteen, twenty three and seventy-seven, or more, blossoms. Fear of breaking the buds on this last crowded, flattened stalk, has prevented our counting accurately. You will now be able to do so. We wished, very much, that you could have seen it in its fresh beauty. We have this day forwarded to you the three stalks.

The other bulb, having a slightly double appearance, threw up, the first year, two stalks, bearing, respectively, seven and eight blossoms, and this year two again, bearing about twenty blossoms each.

We would like very much to know to what you would attribute the free-flowering thriftiness of the bulbs. They received no watering, petting, nor fertilizing beyond our usual treatment. When the garden has its first clearing up in the fall we dig in lightly "fine stuff," well rotted two-year-old farm-yard manure of the very best quality, and over all, later on, we give a winter covering of "coarse stuff." This last tucking in of the coverlet was omitted last winter, as both ground and stuff froze hard while we were waiting for a man to spread it. The only reason suggested to us, after the fine quality of the bulbs, are the presumably short time they remained out of the ground and the deep planting. The flattened stalk of the Lily sent you, started from the ground in that manner, about as where it is cut and twice as thick; the others were normally round.

With regard to the soil in which the *Lilium auratum* grew, it was, when we came here, nearly seven years ago, a rich, black loam; it is now loosing that dark, rich appearance, said to have been produced by cultivation merely, a succession of grain crops, rye and barley, as we have since seen going on in the formerly barren fields near by. This bed of loam is about a foot deep, more or less, has coarse gravel underneath, I think you would call it red, to the depth of from one to two feet, and under that yellow clay, so hard and heavy and compact as to require a pickaxe for removal. The deepest cutting made by us in this stratum of clay showed no change, no suggestion of anything different below. This was learned by having a few excavations made in different parts of the garden several years in succession, to fill up with good garden loam from a cultivated farm near by. All these pits showed the three distinct strata, as described above, with slight differences only in depth.

The deep planting, always remonstrated against here, by those who know the condition of things underneath, brought the bulb almost down to the gravel, and so came near giving it "the bed of sand," so often recommended for Lilies, in your MAGAZINE.

Please pardon the long note. There is so much that is curious and interesting to be seen in, on and under these so long called "Barren Plains of Hempstead," one can scarcely help branching off into whys and wherefores and extra wonderings.—L. S. B., *Garden City, N. Y.*

The flower-stalks above mentioned were duly received, still bearing all the

peduncles from which the flowers had fallen. In this condition they could be counted without difficulty, and were found to be eighteen on one stem, twenty-three on another, and eighty on the other, making one hundred and twenty-one in all! The facts that our correspondent has stated are most instructive, and it is very clear why these plants have been so vigorous and prolific. Strong, sound bulbs were planted deeply in a good soil, with a cool, gravelly bottom underneath, and thus all the conditions were present for the thrift of the plants.

STORING GERANIUMS.

Please give some information about the time of taking up Geraniums in the fall, and keeping them hung up in the cellar for next season, and what precautions to take. We very much value the MAGAZINE, and hope to take it many years.—MRS. G. M. H., *Middlefield Center, N. Y.*

Geraniums that are to be merely kept over for another season may be allowed to remain out as long as the weather will permit, and sometimes this is quite late. Last fall, our plants here remained uninjured until the first of November, or a little later, but that was quite unusual. Oftentimes we have a few sharp frosts from the first to the fifth of October, and after that, perhaps, a fortnight of milder weather. By watching the temperature, and giving the plants protection when cold threatens, they may be allowed to remain some time after frost has arrived. However, when a severe freeze is imminent the plants should be lifted and taken in. Strong plants that have made considerable root-growth may be kept over very well by tying them three or four in a bundle and hanging them up in a cellar, where they will be secure from frost through the winter, and where there is sufficient moisture in the atmosphere to prevent drying out. A cellar containing a furnace, keeping the air constantly dry, is not suitable, and even one with a cement bottom is less desirable than one with soil or gravel bottom. Small plants, and all those varieties that have a small root-growth, such as all those with variegated foliage, do not keep well by this method, as they dry out. Except for those that are very strong we advise placing the plants in boxes of soil in the cellar, and allowing only sufficient moisture to prevent drying out. In either

case it is not necessary to prune or reduce the size of the plants, but to put them away with the foliage on, which in time will turn yellow and wither, and then may be removed, otherwise the leaves will decay and cause the stems also to rot. A little attention in this respect will insure their soundness. The plants, in early spring, can be brought out and potted, and watered quite gradually at first. By planting out time they can be in fine condition.

PLANT EXPERIENCE.

I would like to state some of my experience with several plants, one of them being the Cypress Vine, *Ipomœa Quamoclit*, of which you say it to be necessary to pour boiling water over the seeds before planting. I have tried this method on quite a number of seeds and not one germinated. After this, I took about fifteen seeds and sowed them without pouring hot water on them, and every one sprouted and formed strong plants. There is another plant that you say cannot be cultivated, that is *Trailing Arbutus*, *Epigœa repens*. I have taken some of it from the woods, about April 22d, and planted it at home in the open ground for a few days, and then removed it to a cold greenhouse, where it blossomed and then sent out new shoots. There is another plant that grows wild about here, and of which I enclose a little sketch of the flower. The foliage answers exactly to the description of *Arum Dracunculus*, but the flower, which is of a green color, does not answer so well. Will you please tell us in your next MAGAZINE the name of this *Arum*, and why the other two plants grew so readily.—O. B., Rochester.

It has been customary with many gardeners to soak seeds of the Cypress Vine in quite warm water, but we do not know that we have ever advised this practice as a necessary one, still more as necessary to use boiling water. In our publications mention is not made of soaking the seeds. The statement in regard to *Epigœa repens*, that our correspondent attributes to us, is alike inadmissible; in fact, we have often said that *Epigœa repens* could be cultivated, but it demanded peculiar conditions not often accorded to it by those attempting its culture. The wild plant inquired of is *Arisœma Dracunculoides*, of which the sketch received was a very faithful likeness, and from which our en-



graving was made, on a reduced scale. It is an interesting bog plant, growing about two feet high, usually with only one leaf, having from seven to eleven leaflets. The awl-shaped spadix is about three times as long as the spathe, which is usually two inches. The common name of the plant is Green Dragon.

COBŒA-CLEMATIS.

I have been hoping to see something in your MAGAZINE which would enlighten me about my *Cobœa scandens*, but think I shall have to ask the question myself. I have had very good success with the vine, raised both from seed and cuttings, until toward spring, when it will drop all the leaves for two or three yards from the roots, while the ends continue to grow and bloom finely. I have thought, perhaps, I have had it in too small a pot, or exposed it to too strong sunlight, and should like to avoid similar mistakes this fall. I have always started new plants for the conservatory for winter instead of trying to keep the old ones. Some of the seeds you sent me, received from New Zealand and Australia, are up, and I have transplanted them into small pots, and they appear to be doing nicely. If I am successful with them this winter, I will write you again about them. I have a *Gloxinia* which has been in bloom constantly for more than a year, and now has five perfect flowers, with as many more large buds, while there are signs of many new buds just forming. Will *Clematis Virginiana* do well on the north side of the house, and when is it best to transplant the same, in fall or spring?—MRS. G. C., Brunswick, Me.

The leaves drop as the plant ripens its stem from the base upwards, this is the natural habit. *Clematis Virginiana* is an excellent plant for the north side of the house. It can be transplanted in the fall, October or November, or in the spring.

ASPARAGUS BED IN SUMMER.

Please give your treatment of the Asparagus bed after the spring cutting. Should it be left to grow until fall, and then the tops cut down and the manure put on, or how should it be done?—Miss R. A. C., Orchard Park, N. J.

After the spring cutting the plants should be allowed to grow; and it is best not to cut a bed very late, especially a young bed, so as to allow as much and as strong a growth as possible. Cutting the tops weakens the plants, and if continued all summer would destroy them in two seasons, if not the first one. An old bed of strong plants can be cropped later than one three or four years old. The tops should be allowed to remain in the fall until the foliage is ripe, or until frost comes, and then may be cut away, and a coat of old stable manure given; a liberal dressing of salt at the same time will be beneficial.

LILIES IN THE HOUSE.

Will you be kind enough to give the treatment of White Lilies so as to have them bloom in the house in the spring?—MRS. R. F., *Philadelphia, Pa.*

To raise Lilies successfully in the house, it is necessary to keep in mind that they are plants that like cool and shady places. It will not do to try to force them into bloom by subjecting them to a high temperature. The best White Lilies for pot culture are *L. longiflorum* and *L. speciosum album*. The proper time for potting is during the fall months. An excellent soil for them can be prepared by using equal parts of leaf-mold, good loam and old cow manure taken from the pastures, and that has leached and dried; all these should be well mixed together. Use an eight or ten inch pot, place in about an inch of drainage, and then fill in soil one-third the depth of the pot, set the bulb in the center, and fill in soil to the top of it, and then cover it with about an inch of sand, and, lastly, more soil to a half an inch of the top. Give water and set the pot away in the cellar to stand until spring, or until the shoots begin to push. Do not allow the soil to become quite dry. When the plant begins to push through the soil take it where it can have the light and the sun, but not a strong heat. As soon as buds appear remove it to a place rather shady, or where it can have the sun only morning and evening, but plenty of air. Here it can bloom, and in this condition should be liberally supplied with water. After blooming, the plant should be set where it will get the sun and ripen.

SETTING STRAWBERRY PLANTS.

Please tell me how to set Strawberry plants, and when is the best time, spring or fall, and also which is the best kind for this western climate.—A. B., *Duncan, Neb.*

It is always desirable to set Strawberry plants in August or September, if the soil is prepared, and well-rooted plants can be obtained; otherwise they should be set in spring. In the garden they may be set a foot apart in rows with the rows from two to two and a half feet apart. In field culture fifteen inches by three or four feet is near enough. Most of the best varieties were noticed in our last issue, and by reference to that a selection can be made of three or four kinds. It is not best to be confined to

one variety, and what will prove to be best in any locality can be known only by trial.

HEATING A CONSERVATORY.

From the very many inquiries and answers I find in your interesting MAGAZINE, I am emboldened to seek some information in regard to heating a conservatory. Would you advise the use of an oil stove, or would the fumes from it be injurious to the plants? Please answer, and much oblige an interested reader.—MRS. C. A. McF., *Longmont, Colo.*

We cannot advise the use of an oil-stove to depend upon entirely for heating a conservatory. It is well enough to employ it occasionally, in emergencies, when a great amount of heat is necessary during severe storms, or periods of very low temperature. When oil-stoves are used as the exclusive source of heat the fumes prove injurious after a short time. Hot water distributed by means of iron pipes is one of the best and safest means of heating all plant structures.

LILY OF THE VALLEY.

My Lily of the Valley has made five large plants, but failed to bloom. Please tell me what to do with them next year, or shall I get new ones? I like the MAGAZINE more and more.—E. P. D., *Sheridan, Mich.*

Your plants will, no doubt, bloom if left to themselves. It is common for them to go through the season without blooming when in new, rich ground, and making a strong growth. As the soil becomes somewhat exhausted about them they will bloom more freely.

YOUNG AZALEAS.

How long will it take for Azaleas to bloom raised from cuttings, and from seeds?—M. E. L., *Valparaiso, Ind.*

A plant of Azalea, well grown from a cutting, can be brought to produce a few flowers at the age of two years. A seedling will be about the same, but we suppose our inquirer may know that propagation by seed is only made by those who desire to raise new varieties.

CISSUS-BEGONIA.

How and when can I take slips from the *Cissus* discolor? Will you tell me how to treat the angel-wing Begonia, as some call it, but, I suppose, it is properly called *rubra*. Is it raised from seed or cuttings?—MRS. D. H. D., *Knob Noster, Mo.*

Cuttings of *Cissus* can be taken at almost any time; they need plenty of heat to strike freely.

Begonia rubra is propagated by cuttings; a warm greenhouse is suited to it.

HENRY B. ELLWANGER.

It is with unfeigned sadness that we record the death, on the 7th of August, of one whose name stands above, and we are sure that by a large circle throughout the country his loss will be deeply deplored. His valuable book, *The Rose*, published last year, is known to many readers, and he was known to many others by his writings in horticultural and other journals; one of his last contributions to the press was the able and interesting article on the Rose that appeared in the last July number of the *Century*.

HENRY B. was the second son of GEO. ELLWANGER, the well known senior member of the firm of ELLWANGER & BARRY, Nurserymen, of this city. The deceased was a member of the firm, and was following his profession with so much enthusiasm that he had already made himself conspicuous among horticulturists, both in this country and Europe. For several years he had devoted himself with great zeal to the production of improved varieties of Roses, by means of cross fertilization, and with a prospect of most valuable results. He had received an excellent education, had been reared among plants, and was fitted to promote in a high degree the interests of horticulture in this country, as he was already doing. His death, at the early age of thirty-three years, can be regarded only as a serious public loss.

The family and social relations of the deceased were most pleasing, and his death strikes a blow to those who were most intimate with him that is hard to be borne; these have our sympathies, as sadly we now behold the oft-repeated spectacle of a "mourning father" building the tomb of his son.

DR. JOHN A. WARDER.

The readers of all agricultural and horticultural publications in this country have long been familiar with the writings of Dr. WARDER, and many have made his personal acquaintance. Dr. WARDER died at his home at North Bend, Ohio, July 15th, at the age of seventy-two years. His book "*Hedges and Evergreens*," is, perhaps, the best known of all his writings, and it has long been authority on the subject of which it treats. But Dr. W. has been a constant

writer on horticulture and agriculture for a period of at least a third of a century. For some years past he has been specially interested in the subject of forestry, and about ten years since wrote a valuable "Report on Forests and Forestry," and has ever since contributed a great deal to the press upon this subject. In 1850 he commenced the publication of the "*Western Horticultural Review*," and continued it four years. For many years he was President of the Ohio Horticultural Society, Vice President of the American Pomological Society, and during its separate continuance, President of the American Forestry Association. His life has been one of valuable usefulness, not only to his immediate circle, but to the whole country.

INSECTS AND FRUIT.

One of the most valuable works that has been issued from the press for a long time in the interest of fruit-growers is a volume on "*Insects Injurious to Fruits*," by WILLIAM SAUNDERS. It is published by J. B. LIPPINCOTT & Co., of Philadelphia, Pa.

It is an octavo of nearly four hundred and fifty pages, with four hundred and forty wood cuts, elegantly printed. Each of the cultivated fruits of this country is taken in turn with its insect enemies; in this manner are treated the insects that infest the Apple, Pear, Plum, Peach, Apricot and Nectarine, Cherry, Quince, Grape, Raspberry, Blackberry, Strawberry, Red and White Currant, Black Currant, Gooseberry, Melon, Cranberry, Orange, Olive and Fig. The insects that attack each different part of a plant are grouped together successively as those that attack the root, the stem, and branches, the leaves, and the fruit. By this arrangement one wholly ignorant of insects can refer to any thing that may be said in regard to the pests he is particularly interested in. Every fruit-grower in this country should arm himself first with one of these volumes, and then the necessary apparatus and substances to wage an effectual war with insects that prey upon fruits. Good cultivation, intelligent pruning, and persistent fight with insects must be the course of those who successfully and profitably raise fruit.

CALIFORNIA LILIES.

Dr. KELLOGG, of San Francisco, who has given much attention to raising the California Lilies, finds the Washington Lily, *L. Washingtonianum*, to be the most difficult to raise successfully. "The last time I was out," he writes in the *Pacific Rural Press*, "I took a thermometer to find the temperature where it thrived best in a wild state, also to consult the conditions under which it grew. There is one fact connected with the subject that, if followed up, might throw great light upon the culture of California bulbs. It is one which I have intended to investigate myself, and the only reason I have not is the distance and mountain-climbing necessary to accomplish it. It was a case of the Washington Lily growing in the basin of a rock. The remarkable feature of this was, the bulb was as large as the top of one's head, and lying upon the ground were stalks twelve feet in length, carrying from fifty to one hundred flowers. Now, if any one could investigate the condition under which this growth was made, it seems to me that it would throw great light on the subject. This Lily, nor a great many other bulbs in California, will not grow in sand. I have seen a great variety of bulbs grow in these rocks where, in rainy seasons, they get a great deal of moisture. *Lilium Humboldtii* will grow in California. These seem to require the morning sun. Down below Santa Barbara one may go up a ravine, and if the ravine runs east and west, the Lily will always be on the northern slope, and perhaps on the other side not one will be found. Where the sun strikes when past the meridian you will not find a solitary one growing—that is, where there is no timber; but if the ravine is shaded, trees growing over it, protecting it from the afternoon sun, it will grow on one side as well as on the other. As regards soil, a strong loam for *Humboldtii* would be better than leaf-mold."

MANURE WATER FOR FUCHSIAS.

I was glad to see the treatment of the Fuchsia in July number, for I like the plant very much; but please, what is that "rich soup" to be composed of to feed them on thrice a week.—MRS. J. J. K., *Stillwater, N. Y.*

It may be any good liquid manure such as may be made from stable or cow manure, guano or soot.

THE PAST WINTER.

My Candidum Lilies were diseased for several years, and last winter killed them outright. I agree with you exactly in regard to the cause of extensive injury to trees and plants last winter. Among my losses are some thirty *Lilium auratum*s; three Irish Junipers, four to ten feet, the tallest exposed to the sun, but never injured before, the others were shaded; two Swedish Junipers, four to ten feet; one Savin Juniper, eighteen years old, ten feet in diameter; one *Thuja ericoides*, three feet, shaded. I have several of each of above kinds that were uninjured. In the spring of 1882, I planted, in a little bed, the following varieties of *Retinisporas*: four *R. plumosa aurea*; two *R. squarrosa*; two *R. plumosa*; two *R. leptoclada*; one *R. pisifera*; one *R. plumosa argentea*; they were fully exposed to the sun all winter, and all came through unharmed, except *squarrosa* and *pisifera* and they were only slightly touched, and fully recovered. I have also had *R. filifera*, *R. obtusa* and *R. pisifera* out several years, and they all proved hardy; but *obtusa* and *plumosa argentea* seem to be unhealthy. All the others I consider very valuable here, and am surprised to see them put down as not hardy at Rochester, by ELLWANGER & BARRY.—S. J. M., *Grantsville, Md.*

DESTRUCTION OF WHITE PINE.

"The alarming destruction of American forests," is the subject of an article which appeared in the August number of *Forestry*, from the pen of Mr. WILLIAM LITTLE, of Montreal, an authority who has made the subject of American forestry a life study. Mr. LITTLE states that, at the present reckless and wanton rate of cutting, the United States will be entirely denuded of its merchantable White Pine in seven years!

THE STATE FAIR.

The New York State Agricultural Society will hold its annual exhibition in this city from the 10th to the 14th of this month, September. Fine exhibits in all departments are expected. The show is always a good one in this part of the State. Ample accommodations exist for all who may come, and undoubtedly there will be a large attendance.

ASHES—ROSE MILDEW—INSECTS.

1. Referring to the article on page 238 of the August number, will you please inform me what specific effect coal and wood ashes have on soils? Are they as valuable for horticultural as agricultural purposes? Is the effect of wood ashes that of a fertilizer, or only that of a preventive against insect ravages?

2. What Roses are specially liable to mildew, and what have a comparative immunity from its attacks?

My Phlox, this year, has been almost entirely destroyed by red spider. This is one of the most aggravating pests I have to contend with. It is such an insidious enemy, as it works in ambush. I find, however, that forcible syringing with a hose, if persisted in, dislodges the enemy pretty effectually.—C. M. L., *Baltimore, Md.*

Wood-ashes, being the mineral constituents of plants, are of great benefit to nearly all crops, as they afford necessary elements of plant structure in a condition to be immediately assimilated; potash and phosphates form a large proportion of their composition, and, without reference to special crops, may be said to be fully as useful in the garden as in the field. Coal-ashes have a little, and only a little, manurial value, and probably are not worth hauling; but they have a good mechanical effect on heavy soils.

With regard to the mildewing of Roses much depends on localities, but some particular varieties are invariably worse affected by mildew than others. One of these that all acquainted with will testify, is the old Giant of Battles. ELLWANGER, in his book on "The Rose," says that all the varieties of which Giant of Battles is the type are similarly affected, and mentions the following list: Arthur de Sansal, Cardinal Patrizzi, Crimson Bedder, Empereur de Maroc, Eugene Appert, Eugene de Nimes, Lord Raglan, Louis Chaux, Mrs. Standish, Vainquer de Solferino.

FRUIT-GROWERS OF AMERICA.

The meeting of the American Pomological Society, at Philadelphia, on the 12th of September, will be, no doubt, of great interest and importance to the fruit-growers of the country. Every State and Territory will be represented by some of their leading pomologists and fruit-raisers. It is unnecessary at this time to say what everybody knows in regard to the valuable work performed by this Society for every part of the country, nor need we remind our readers of the pleasure and profit to be received in meeting its members. The advan-

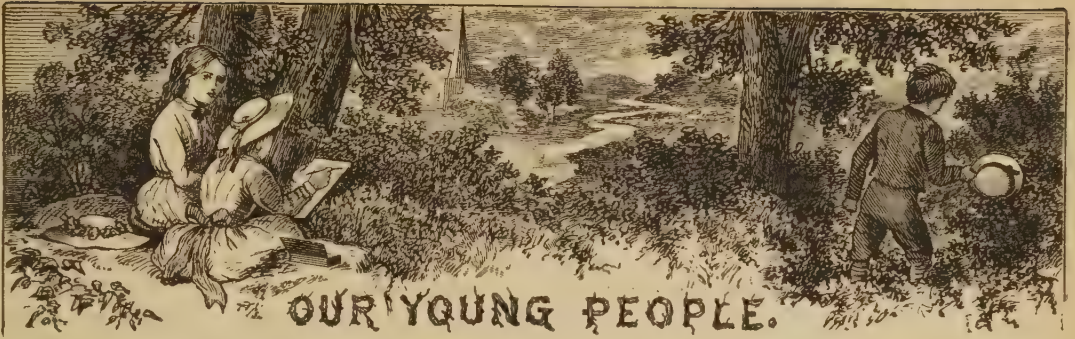
tages of meeting in a place like Philadelphia, where, and in the suburbs of which, so much is to be seen of horticultural interest, will, of itself, be sufficient inducement, we trust, for many of our readers to make the trip there at the pleasant season when it is to be held. Ample arrangements will be provided for all who may go, and any inquiries in regard to personal accommodations can be made of Hon. J. E. MITCHELL, 310 York Avenue, Philadelphia, Pa. Packages of fruit for exhibition should be addressed to THOS. A. Andrews, Horticultural Hall, Broad Street, Philadelphia, Pa., for the American Pomological Society.

FAY'S PROLIFIC CURRANT.

The latter part of July we received from Mr. GEORGE S. JOSSELYN, of Fredonia, N. Y., a box of the new red Currant, Fay's Prolific. The berries, which hold their size very evenly from top to bottom, were fully equal in size to the best specimens of the Cherry Currant, and the bunches were nearly twice the length of those of that variety. The color is a bright red. The fruit is less acid than the Cherry Currant, and more nearly resembles the Victoria in this respect; of these two varieties it is a cross product. The unanimous testimony of all those who have fruited this variety, and the number is now large, leaves no room to doubt that its productive capacity is greater than any other, and, consequently, it must soon take the highest rank for market cultivation.

GALTONIA CANDICANS.

This plant, formerly *Hyacinthus candicans*, of which an illustration was given in our last volume, passed the last winter in our ground without any protection whatever. This season the plants have made a strong growth. A more severe test for this plant is not needed, as the ground for a great part of the winter was nearly or quite bare of snow. About the tenth of August the plants commenced to bloom; the flower-spikes measured over four feet, and bore from two to three dozen pure white, pendulous, bell-shaped blossoms. As a hardy perennial for the border or the shrubbery, *Galtonia candicans* is sure to have attention as soon as known.



PLANS AND CHANGES.

Miss Bristol's reception room was a combination of library, museum, aviary and parlor, an arrangement which proved a delightful one to most people, especially amateurs. Since the evening when certain young people in this charming room had announced their choice of vocation for the future, there had intervened many such gatherings prior to the evening when we again note, and now, for the last time, the same charmed circle still fascinated and held by the influence which had at first attached them.

Winter once more holds sway, and all had resumed their school duties, and all, with one or two exceptions, expected to graduate in the "High School Department" at the close of the present term. Tom Stanley was one of these. He had suddenly abandoned the course of private lessons that were to fit him for Yale, and when questioned had declared, to the surprise of his friends, that the thought of a college course had become repugnant to him. His uncle, who was also his guardian, endeavored by every persuasion to divert him from his purpose, even to hinting that the future social position in which his prospective wealth would place him, demanded that he should use the sum set aside for a liberal education in the way it was intended. To this, Tom had promptly answered, that if he had a strong inclination for scholarly pursuits it would have been different, but that he had not, and no longer cared for a social position which only wealth and a knowledge of the higher sciences and classics could give him, that he should never cease to be a student while he lived, and that he didn't expect to graduate until he died.

After a moment's serious thought, Mr. Stanley inquired if that Miss Bristol had

been influencing him in this direction. "On the contrary," Tom answered, "she does not approve of my decision. But, I will admit that my intercourse with her has developed a keen sense of my future responsibilities, and created a desire that I may become worthy to assume them."

His uncle was puzzled, but only answered, "I'm afraid, Tom, that you lack ambition in the right direction." Tom replied, "Perhaps I do, uncle; but I hope to make a man of whom you will not be ashamed." And so it was settled that Tom Stanley was to graduate at the High School in the village.

In the meantime, there had been much marveling at the improved condition of Miss Bristol's father. He was becoming stronger, his mind clearer, his voice losing its wavering tone, and altogether he seemed like a regenerated man, except that he was still very deaf. On this particular evening he had met his daughter's young friends as they came in, and soon after, on retiring to his room, he said, in a jocular way, that when he recovered his hearing he should spend the whole evening with them.

"Does he really expect that?" inquired Herbert Talbot.

"O no, I think not," replied Miss Bristol, "but since his late improvement from the effects of the paralysis, which years ago caused his sudden deafness, and for a time, loss of speech, I am almost expecting it myself. Cases of sudden restoration of eye-sight and hearing are not unknown when their loss had been occasioned by paralysis. But I suppose," she added, with a sigh, "that such good fortune is too much to expect in his case. And now, to change the subject," she continued, "Henry Harding, our future farmer, hints of an announcement that he can make that will surprise us."

At this juncture Tom Stanley commenced a close inspection of a group of curious fossils, as though that were the first time he had seen them, while Henry proceeded in this wise:

"You all know," said he, "that my new brother-in-law is full of snap and enterprise, but you do not know that he and my sister have decided to rent out their village home, in the spring, and take advantage of the government lands out west to secure a farm, and that they persuaded me to go with them. My brother will go early in the season, without his wife, to select land and to 'enter' his claim therefor with the District Registrar, after which he will 'break ground,' and go on with arrangements for a home; and when our school shall have closed, in June, my sister will go to join him in company with Tom Stanley and myself."

"Whew!" whistled out Herbert, "it is bad enough for you to go and bury yourself, but what sense is there in Tom's going?"

"That's what I think," exclaimed his cousin Emma. But Tom continued his scrutiny of the fossils with his back to the company, and offered not a word. So, Henry went on to say:

"I've not told you all, yet. Only that Tom insists upon going, I could not go myself. I don't know how he managed it with his uncle, I only know that Mr. Stanley had several long talks with my father to the effect that Tom was bent upon going west if I could be allowed to go also, and that it was finally arranged that my father should go with my brother and 'enter' a quarter section adjoining his, Tom and I being under age, so that the two houses required may be built under one roof and stand across the line, making one home for us all; myself representing that 'member of the family actually residing on the land,' as the law requires. Tom has arranged with his uncle that the sum that was to have been expended on his college course shall be at his disposal, subject to approval, in the purchase of the necessary outfit, and I am ashamed to say that he insists upon doing the major part in that direction. But were it otherwise, I suppose I should be plodding away, instead, under the man who leases the homestead farm two miles hence, for a farmer I'm bound to be. But Tom has only himself to

thank for his share in our plans, for he never 'let up' until he had the matter settled to his notion."

Then up sprang Herbert, and grasping Tom by the two shoulders, wheeled him around, and exclaimed:

"See here, old fellow, what craze has got into your brain? You know you'll never make a farmer."

"It's hard to tell yet what I shall make," he answered, "except that I propose to make a little more muscle about the first thing I do, and if in doing that I happen to accomplish something else, all right. I am determined to have the benefit of that sort of experience to be derived from roughing it two or three years in the broad, open, free life of the far west. There are other reasons that have weight with me, the least of which is that I am sure I shall like it. What say you, Miss Bristol?"

"I am certainly very much surprised," answered that lady, "but it is quite possible that you have chosen wisely for yourself, though very unlike the course pursued by most young men of your class."

"As I shall aim to be myself quite unlike those to whom you refer," he answered, "it will be as well, perhaps, to choose a different course of life."

Then Miss Bristol inquired what the land would cost them; and the other boys, yes, and girls, too, plied them with questions until they were fairly pumped dry of all the information they had acquired about the different methods of obtaining public lands. It appears that Mr. Harding had sent to the "General Land Office," "Department of the Interior," Washington, D. C., for "Circular Instructions Relative to Entries under the Homestead, Pre-emption and Timber Culture Laws," and had received the very latest acts of that very unsettled and never-know-its-own-mind body, called Congress.

What most interested Miss Bristol was to learn that there are twenty-two States and Territories having public lands to dispose of, embracing a variety of climate from Michigan and Oregon to that of Louisiana and Florida; the most desirable lands being sold at \$2.50 per acre, and the second class at \$1.25 per acre. For a quarter of a section the "Land Office fees" vary from \$18.00 to \$22.00 under the Homestead laws; but the

"Timber Culture" applicant pays only the "Entry" fee of \$14.00; all of which was discussed, pro and con, for a half hour, or more, by this wide awake company of boys and girls, when suddenly a clear, sharp call took Miss Bristol quickly to her father's room, where she found him sitting up in bed, looking excited and almost frightened.

"Daughter," said he, "I have been hearing your conversation, out there, for the last twenty minutes, or more, and thought I was dreaming, but when my clock struck it sounded like thunder, and brought me to my senses. Daughter! daughter! what does this mean?"

"It simply means that your hearing has returned as suddenly as it left, just as your wise old physician predicted that it might. Why do you look so anxious? Are you not delighted, father?"

"Yes, of course, or I shall be when I get used to it, but I was startled at first. Why do you speak so loud? and why does my voice sound so strangely? Just hear them in the other room! they are wondering if I am sick."

"I'll tell them you are well, father; O, ever so well now!" she answered, "and that you are going to be happy, very happy and thankful."

"Yes, yes; happy and—thankful! tell them that!"

What immediately followed must be imagined, for time flies and space is consumed, and our story wanes to its close. The change in Mr. Bristol proved but the beginning of the end. For two brief months he once more rejoiced in the voices of his friends, in the prattle of children, in the rich harmonies of music, in pulpit ministrations and words of prayer; and then, one morning, his daughter found him still and cold, all his sense locked, this time, beyond earthly unloosing.

And now Miss Bristol is alone, except that there appears in the midst of her trouble a true, good man who has been biding his time, and who now assumes every care and responsibility.

After all is over, in the presence only of one lady friend and her devoted class, the vows were exchanged which gave him the right to bear her away, even amid the jealous-eyed young friends, whose tearful protests were mingled with their good-byes.—AUNT MARJORIE.

THE KING OF BIRDS.

This is the name which is given to the Eagle, a bird that has been looked upon since ancient times as emblematic of might and courage, for it is much stronger than other birds, and the elevation and swiftness of its flight are wonderful. Its home is usually located in some spot where the surrounding scenery is of the wildest and most beautiful in nature, and a rocky cliff or shelving precipice is the place it selects on which to build its nest. This is simply of brush and a few sticks put together for the purpose, and in it the eggs are laid, and the young Eaglets nurtured until they are of sufficient size and strength to take care of themselves, when they, in their turn, make other homes. The eye of the Eagle is famed for its keenness, and the distance at which its piercing sight can distinguish an object is wonderful. Eagles are also remarkable for length of life, for it is known that some of them have attained the great age of over a hundred years.

The true Eagle is known at once by the tarsi, or feet, which are feathered down to the toes, thus distinguishing it from birds called *Ernes*, for the latter more properly belong to the *Falcons*, although the name Eagle is also given them. One of the best specimens of the true Eagle family is the Golden Eagle, which is of large size, for it measures, when the wings are spread, eight feet from tip to tip. It is of a dark brown color, some parts almost black, the head and neck covered with pointed, golden red feathers. The Golden Eagle is found in almost the entire Northern Hemisphere, and is the largest of the species. Many stories are told of Eagles carrying to their eyries lambs and small animals of various kinds. They have also been known to carry off young children whose rescue from the dreadful fate which threatened them seemed miraculous.

The Eagle is of historic fame, for it was the standard of the old Romans; it has been used in heraldry for ages past, indicating magnanimity and fortitude, and is the chosen emblem of the United States of America. The White-headed, or Bald-headed Eagle, which is our national symbol belongs to the family of *Ernes*, and is also called the Sea Eagle. The principal coloring of the bird



is dark brown, but the head, neck, breast and tail are white. It usually makes its home near the sea coastor beside some lake or river, and its favorite food is fish, although it is known to carry off young fawns, lambs, and other small animals, and feeds on various aquatic fowls. The flight of these Eagles is exceedingly graceful and majestic in appearance when circling and soaring through the air. The Osprey may also be termed an Eagle of the sea, for beside it he makes his home, and the fish which he catches from its waters are his food.

Besides those which have already been described are the Owl Eagle, the Hawk Eagle, the Marsh Eagle, and many others. There is so much that is grand and majestic connected with the Eagle, and he is such a fearless, powerful creature that the name King of Birds, which has been given him, seems a most appropriate title.—M. E. WHITTEMORE, *New York*.



The following letter from Washington Territory has some items as interesting to many people as though they had sprung from flower seeds, or sprouted from bulbs; items giving a slight glimpse how people live and thrive, and can do Christian work in the new countries.

Which member of our letter-club will be the first to write a letter or card to this far-away girl, who so sensibly gives us her full address? We curiously note, however, that the letter was posted at "Medical Springs."

As the young people are invited to write for the MAGAZINE, I thought I would do so, as I am a reader of it, and much interested in it, and want to become a subscriber, if I can. I am taking botany lessons of one of our neighbors, but have not got so far over as examining flowers yet. The same lady that teaches me teaches our school, but it is three miles distant, and I cannot go unless I ride a horse that has had a saddle on only once or twice, and no woman has been on it. Our school house is on a prairie, about a mile and a half from timber. It is surrounded with Nasturtium flowers, but there is no fence.

There is quite a variety of wild flowers growing here, such as Lupine, Lewisia, Clarkia, Lady's-slipper, Larkspur, Mock Orange, wild Geranium, Clematis, Ferns, and a great many that I do not know the name of.

I have some cultivated flowers; among them are

Pinks, Poppies, Hollyhock, Dianthus, Digitalis, Pansies, Snapdragon and others.

It is very warm weather here now, and is almost the fourth of July. We expect to go to camp meeting, to-morrow, if nothing happens to prevent. We have Sunday school in the school house, my brother is superintendent and my mother is teacher of the infant class.

I believe I will tell you that we have four horses and one mule, two cows and three calves, and one pig, and over fifty little chickens and ten old ones. For fear of tiring you I will close for this time. Yours, now and forever.—CORA A. SALNARE, *Steven's, Spokan Co., Wash. Terr.*

We have pondered sometime as to the propriety of giving space to this next letter, as it is not very floral in its character. But thinking that some other boys, and girls, too, perhaps, may be unduly sensitive about being classed with "baby faces," (!) we have decided to give it room. Surely, there would seem to be a tacit understanding between our draughtsman and the boy's auntie.

I wrote you one letter, long ago, and now I am just going to tell you why I did not send it. You see, we boys think its an awful time before we get big, or some of us do, and we never go with little chaps, nor have much to do with them, nor little girls, either, 'cause when we were little the big boys and girls wouldn't have a thing to do with us. So, when my aunt's MAGAZINE came, and I saw that baby-faced girl on your sign, as you call it in the last number, I just tore up my letter, and when my aunt wanted to mail it with hers I told her what I'd done, and told her that if that was one of the sort of friends you expected to have write to you that I wasn't one, for I'd outgrown that lot long ago; for, you see, I am more than five months over fourteen years old. And then, of course, she must up and laugh, and laugh, until it wasn't funny at all. But after she had looked at the picture a bit, she said that the artist made it for one of the baby sisters that's always poking its head in the way to see and hear everything that's going on. And then I knew it myself, for I've got one of that sort, and she says, "Let me yite," "Let me yead," and she don't know a letter. So now, I just thought I'd tell you how I got a back-set about writing, if it is foolish. I s'pose, you won't print this, as there aint much in it about flowers. So, good bye.—ROSCOE HARPER, *Chicago*.

We would like to know what was in the first letter, something about growing things, of course. Please write it over and send it on.

Here comes a note from our stand-by. We'll never call her by the word that her initials spell—never.

I send you a pressed flower which is called the Grass Lily; I do not know any other name for it. We have a good many flowers in bloom now, among them the Oleanders, Fuchsias, Geraniums, Begonias, Phlox Drummondii and Petunias, besides Dianthus as large as Roses, and other kinds, too many to mention. We have over one hundred varieties of

flowers. I have a large *Caladium* that a good quaker lady gave me, last fall, and now there are small ones coming up around it.

Will *Geraniums* and *Dahlias* from seed bloom the first summer? [No.]

The name of the creek at Pine Bluffs is Pine Creek.
—I. M. P.

PLUMBAGO CAPENSIS.

For blue flowers in fall and winter this is a very useful plant. It is easily raised and produces its flowers freely. It does well with little attention, either in the greenhouse or window. It is best to keep



the plant in a rather small pot. Cuttings taken in the spring will root easily, and will make fine plants by mid-autumn, by carefully growing them in pots until summer, and then planting them out; about the first of September take up and pot them, water, and place in a shaded cold-frame until established and ready to take into the house.



MINNESOTA HORTICULTURE.—The Report of the State Horticultural Society of Minnesota, for 1883, is a fine volume, and shows that fruit culture, vegetable gardening, and ornamental planting are receiving full attention at the hands of its enterprising members and others. At the summer meeting, President HARRIS, in his address, said, "We have much, to-day, in the Agricultural Colleges of Minnesota, where the preliminary knowledge that can lead to future success can be abundantly furnished, and every agriculturist who has a son or daughter and properly spare the means, should not fail to give them a literary course in this institute. By all means send up the girls, that there may be some ladies for the coming generation that may be fitted to adorn rural homes. We now and then see a young lady who can adorn any station in life and yet can pick a

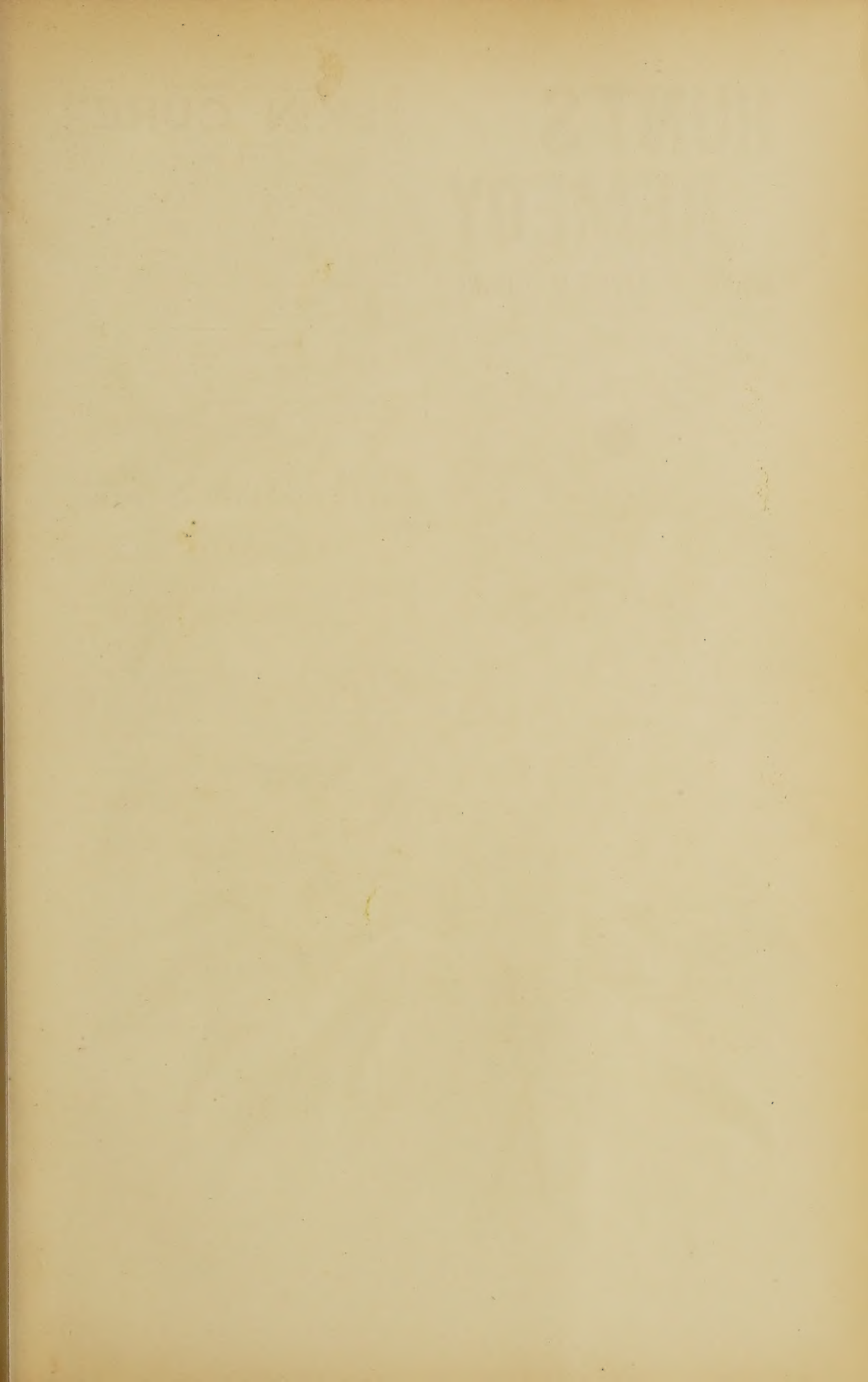
hundred quarts of Strawberries in a day, and find time to help her mother about the housework. Women make good florists, and why may they not become equally famous horticulturists?" In his annual address, at the winter meeting, the President paid a fitting tribute to DARWIN and JAMES VICK, as "men whose labors have been largely for the benefit of farmers and horticulturists." The State Horticultural Society is active in promoting the organization of County societies throughout the State.

DIO LEWIS' MONTHLY.—This is a handsome magazine of over a hundred pages, in large, clear type. Of course, hygiene is the idea that pervades it, and the idea and the expression of it in this manner are of interest to every person in this country. As the publishers say, their aim "is to popularize sanitary science;" and they "strive to make the subject of the health of our bodies as simple and interesting as a story." Especially valuable will this publication be to the young people of every family it visits. It is of importance that they should know early in life, and be frequently reminded of the laws of life and health, and how to observe them; their infringement is suffering and sorrow. And all invalids need the cheering and helpful gospel of proper diet and clothing, pure air and exercise, and healthy dwellings. The first number was issued in August, DIO LEWIS, editor. Published by CLARKE BROTHERS, New York, 68 and 69 Bible House; price \$2.50 a year.

MONTREAL HORTICULTURE.—The Eighth Report of the Montreal Horticultural Society is a valuable one, containing, as it does, the papers of CHARLES GIBB, of Abbottsford, and Professor J. L. BUDD, of Ames, Iowa, on the fruits and fruit trees and ornamental trees and shrubs of Russia, which they observed on their late visit there. Also a paper by H. GOEGGINGER, of Riga, Russia, on "Our Fine Fruits." Some of the horticulturists of Canada, and Prof. BUDD, of Iowa, are making tests of the most hardy and valuable cultivated trees of Russia, and it is probable the result will be a gain to horticulture in high latitudes on this continent.

ONTARIO ENTOMOLOGY.—The Entomological Society of the Province of Ontario has lately issued an Index to the thirteen annual reports that it has published, making the whole work now very valuable, not only to those directly interested in the science of Entomology, but to farmers, fruit-growers and horticulturists generally. This Society has reason to look with satisfaction on the work it has accomplished, and the valuable aid it is rendering to the field-worker and plant-grower, and those engaged in other kinds of business. The society should have the encouragement and aid of a membership from all departments of business.

NATIVE FERNS.—We take occasion here thankfully to acknowledge the receipt, some weeks since, of a copy of a "Supplement to the Catalogue of the Davenport Herbarium," issued in March last, by GEORGE E. DAVENPORT, of Medford, Mass. Mr. D., as many of our readers are well aware, is a most assiduous student of the Ferns of this country. This supplement, together with the general catalogue, will be found of great service to those making large collections of Ferns. Of those genera already noticed in the articles on "Native Ferns" in former issues of this MAGAZINE, the *Polypodium* in this supplement supplies two species: *Polypodium Swartzii*, climbing on shrubs, at Key Layo, Florida, found by A. H. CURTISS, in March, 1882, and *P. thysanolepis*, found in the Huachuca mountains, Arizona, in August, 1882, by Professor LEMMON.





BOUVDIAS BRIDE AND ELEGANS.